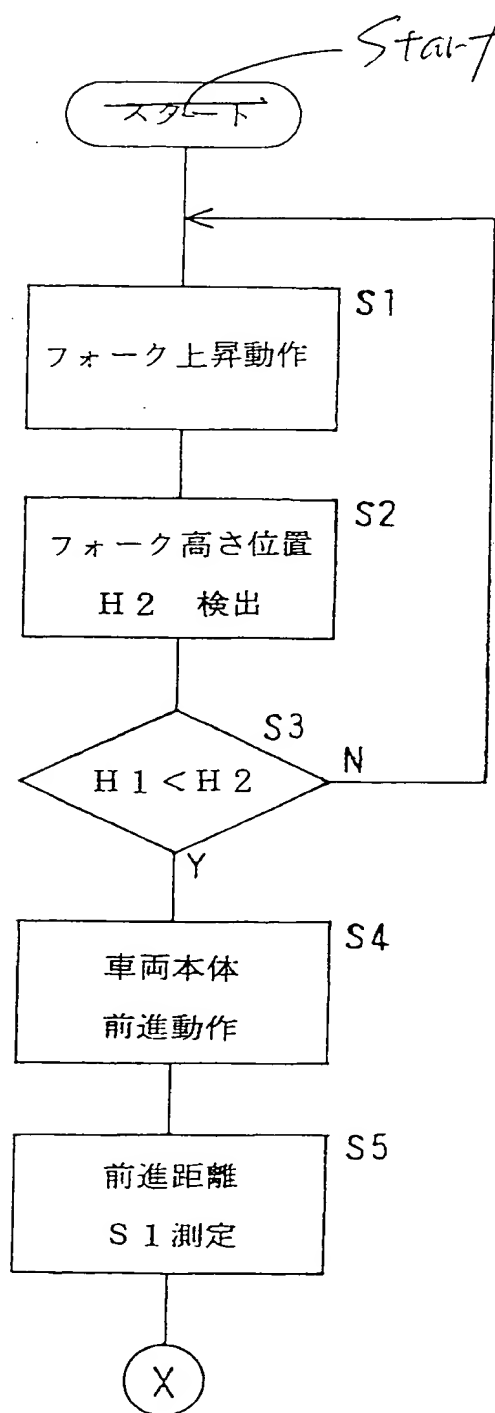


1: lift unit; 2: lift height detecting section; 3: running system; 4: traveling distance measuring section; 5: information section; 6: alarm section; 7: control device; 8: memory unit; 9: arithmetic processing unit

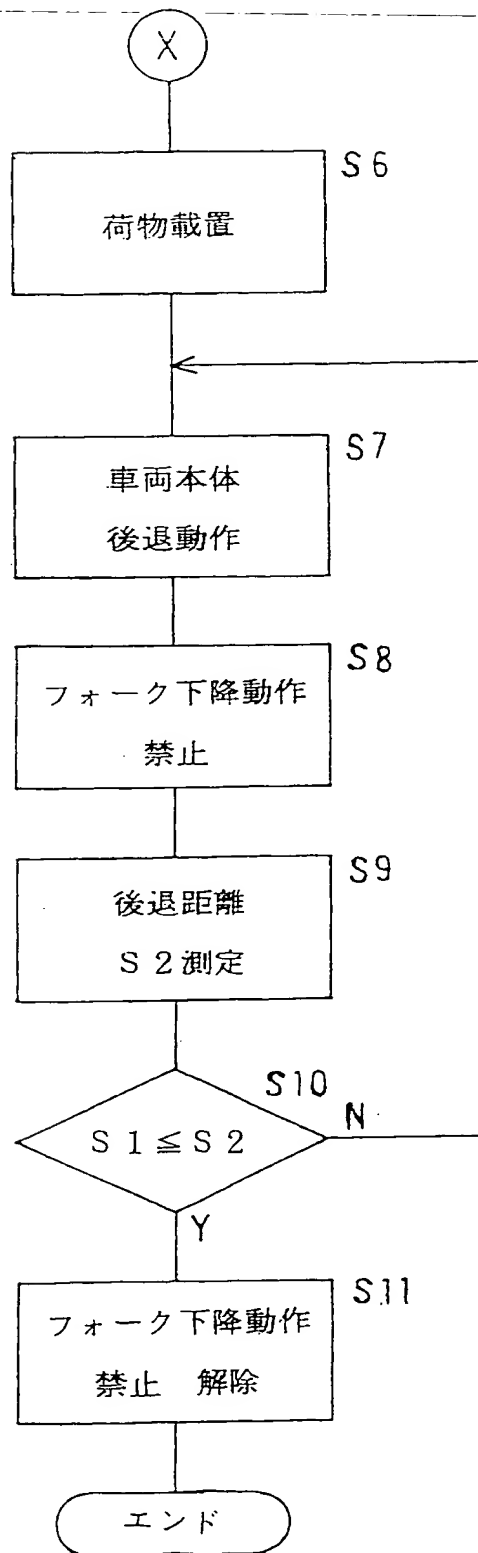
FIG. 2



s1: raise forks; s2: detect fork vertical position H2; s4: move forward the vehicle main body; s5: measure a forward distance S5;

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FIG. 3



s6: set a cargo on the carriers; s7: start the rearward movement of vehicle main body; s8: prohibit the lowering movement of forks; s9: measure a rearward distance S2; S11: cancel the prohibition of lowering movement of the forks; end.

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FIG. 4

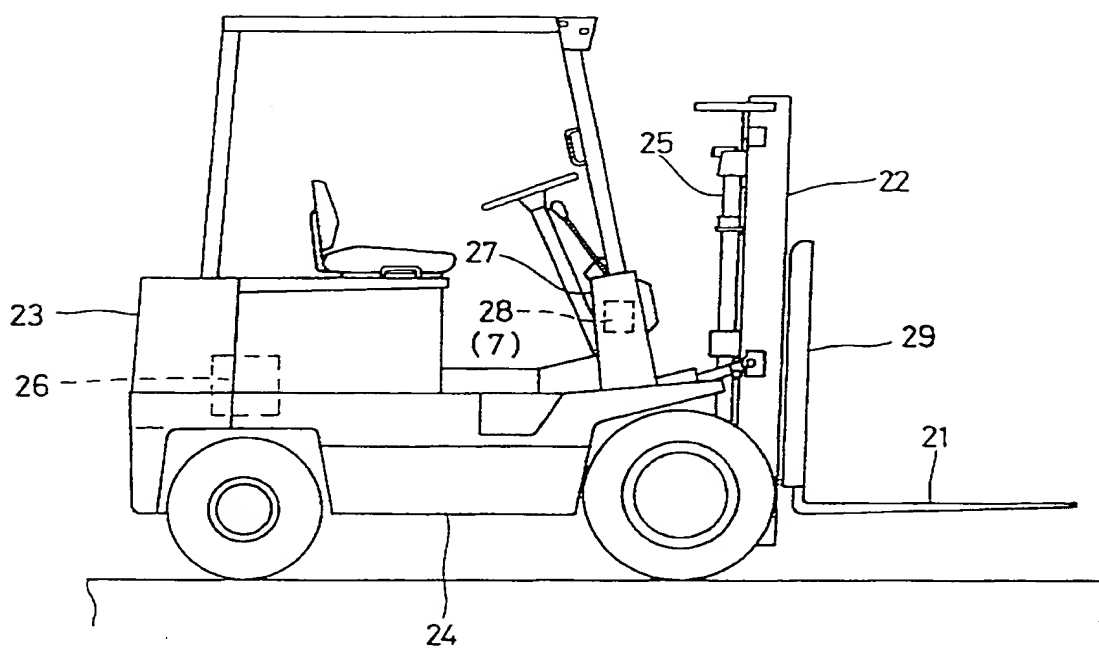
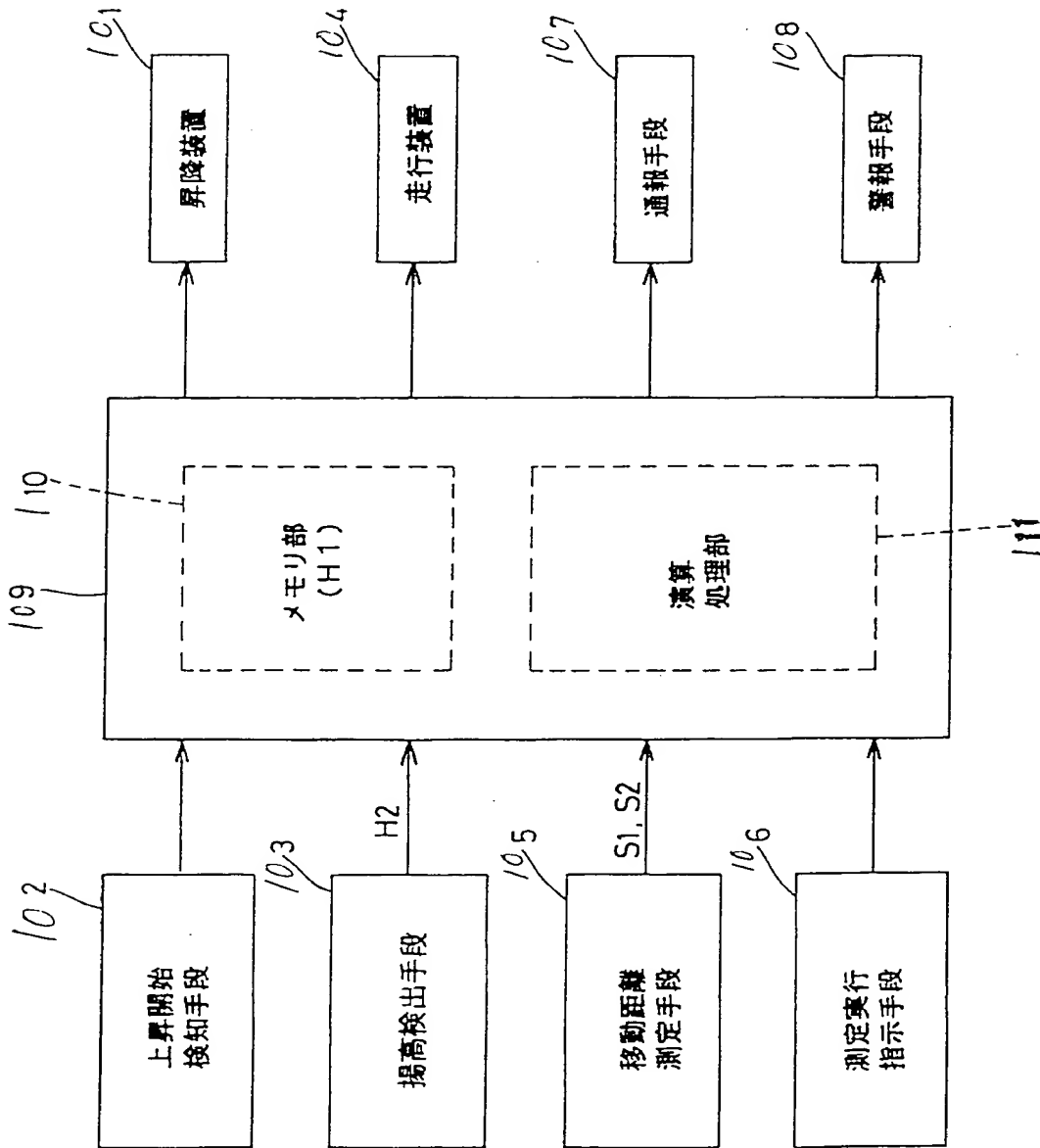
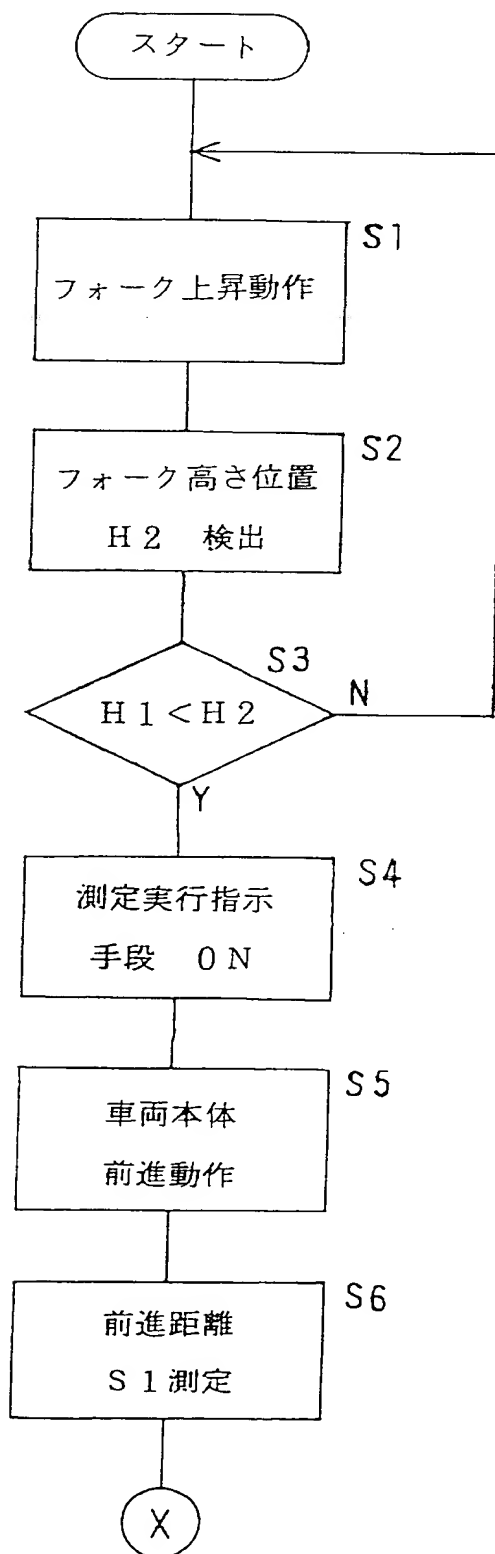


FIG. 4



101: lift unit; 2: rising start-up detecting section; 103: lift height detecting section; 4: running system; 5: traveling distance measuring section; 6: measurement execution designating section; 7: information section; 8: alarm section; 9: controller; 10: memory unit; 11: arithmetic processing unit.

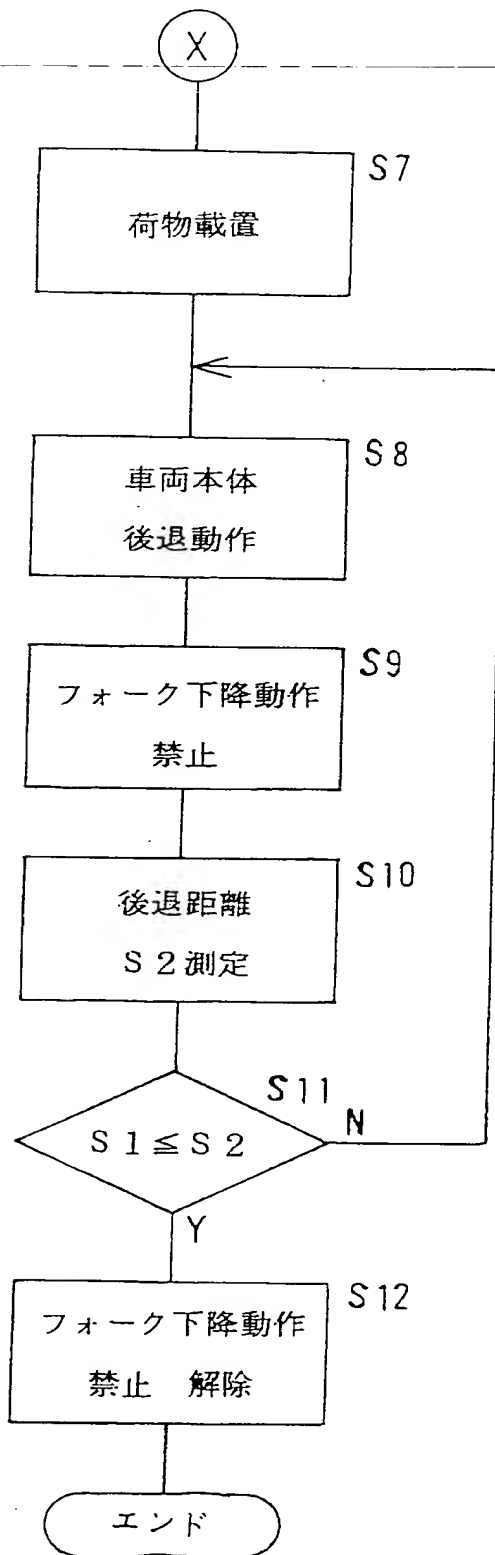
FIG. 6



Start; s1: raise forks; s2: detect fork vertical position; s4: switch on sectionurement execution designating

means; s5: start the forward movement of vehicle main body; s6: sectionure a forward distance S1;

FIG. 7



s7: set a cargo on the carriers; s8: start the rearward movement of vehicle main body; s9: prohibit the lowering movement of forks; s10: sectionure a rearward distance S2; s12: cancel the prohibition of the lowering movement of forks; end.

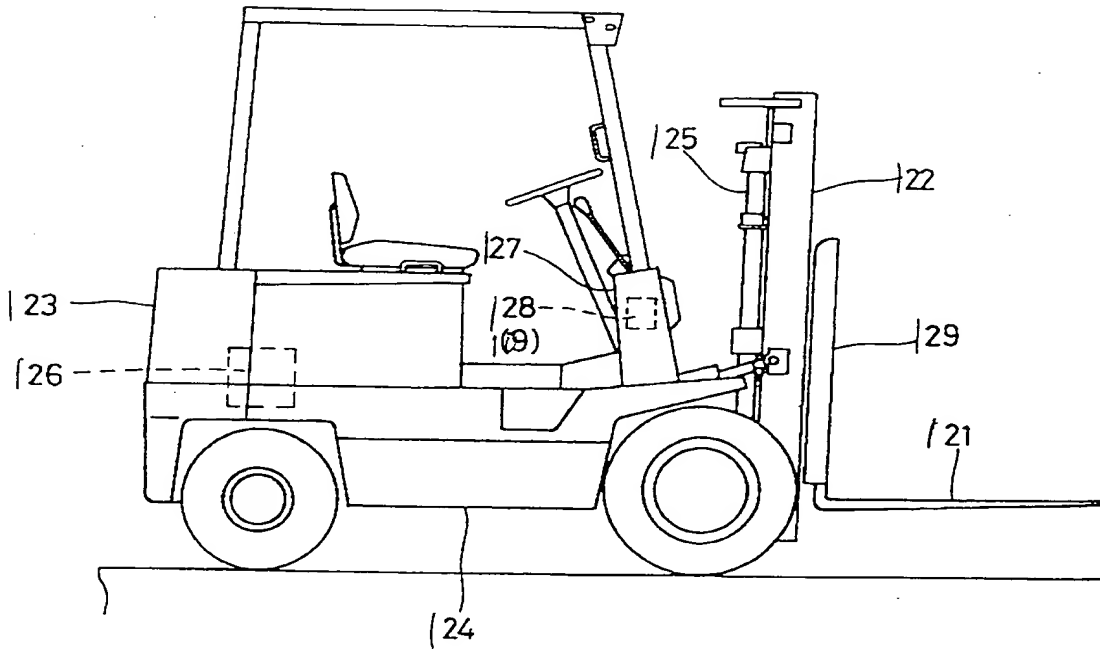
087995 061401  
FIG. 7

FIG. 8

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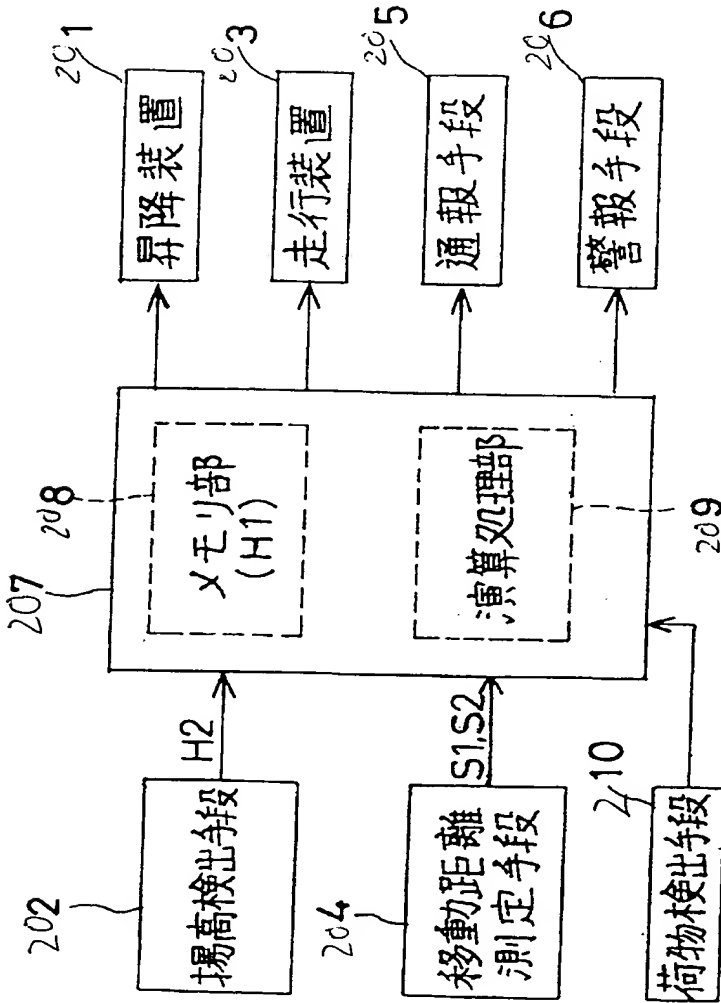
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087993-06401  
FIG. 8

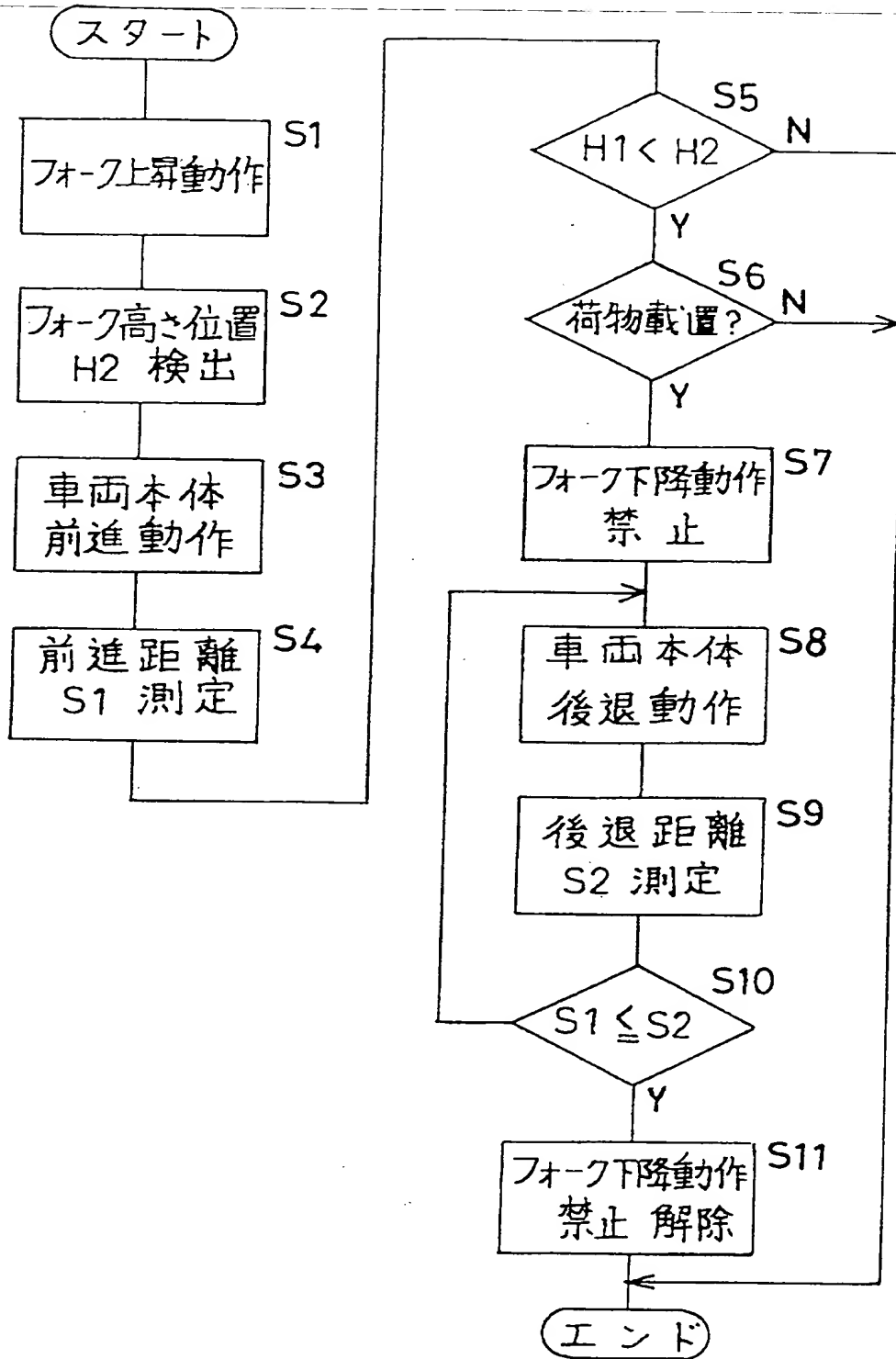


FIG. 1



1: lift unit 201: lift height detecting section; 3: running system; 4: traveling distance measuring section; 5: information section; 6: alarm section; 7: controller; 8: memory unit; 9: arithmetic processing unit (movement control section); 10: cargo detecting section.

FIG. 10



Start; s1: raise forks; s2: detect fork vertical position H2; s3: move vehicle main body forward; s4: measure a forward distance S1; s5: is a cargo set on forks?; s6: prohibit the lowering movement of forks; s7: move vehicle main body rearward; s8: measure a rearward distance; s9: measure the prohibition of the lowering movement of forks; end.

FIG. 11

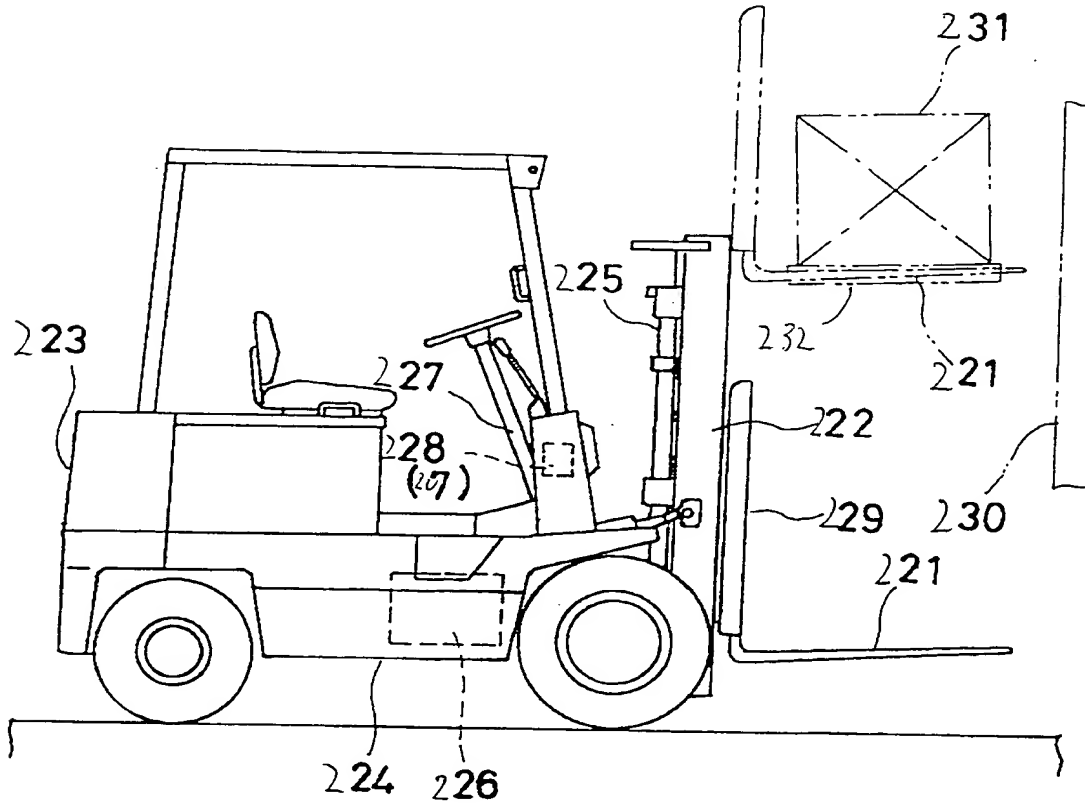
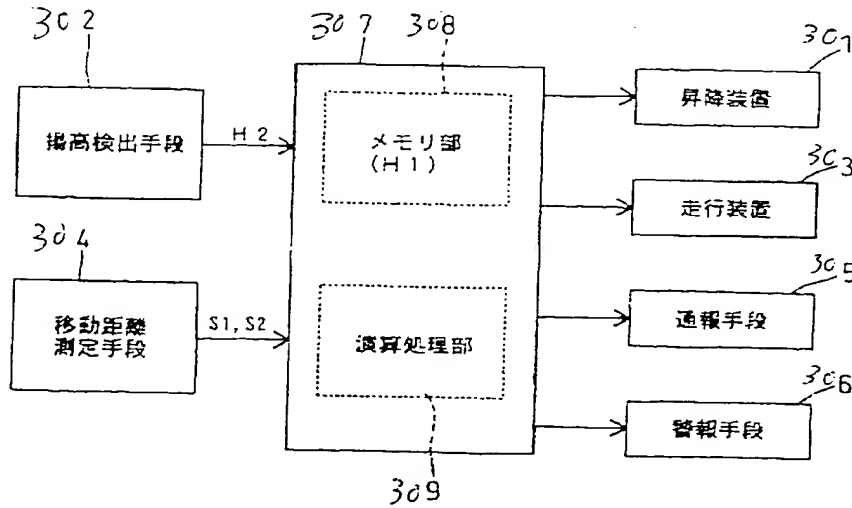


FIG. 11

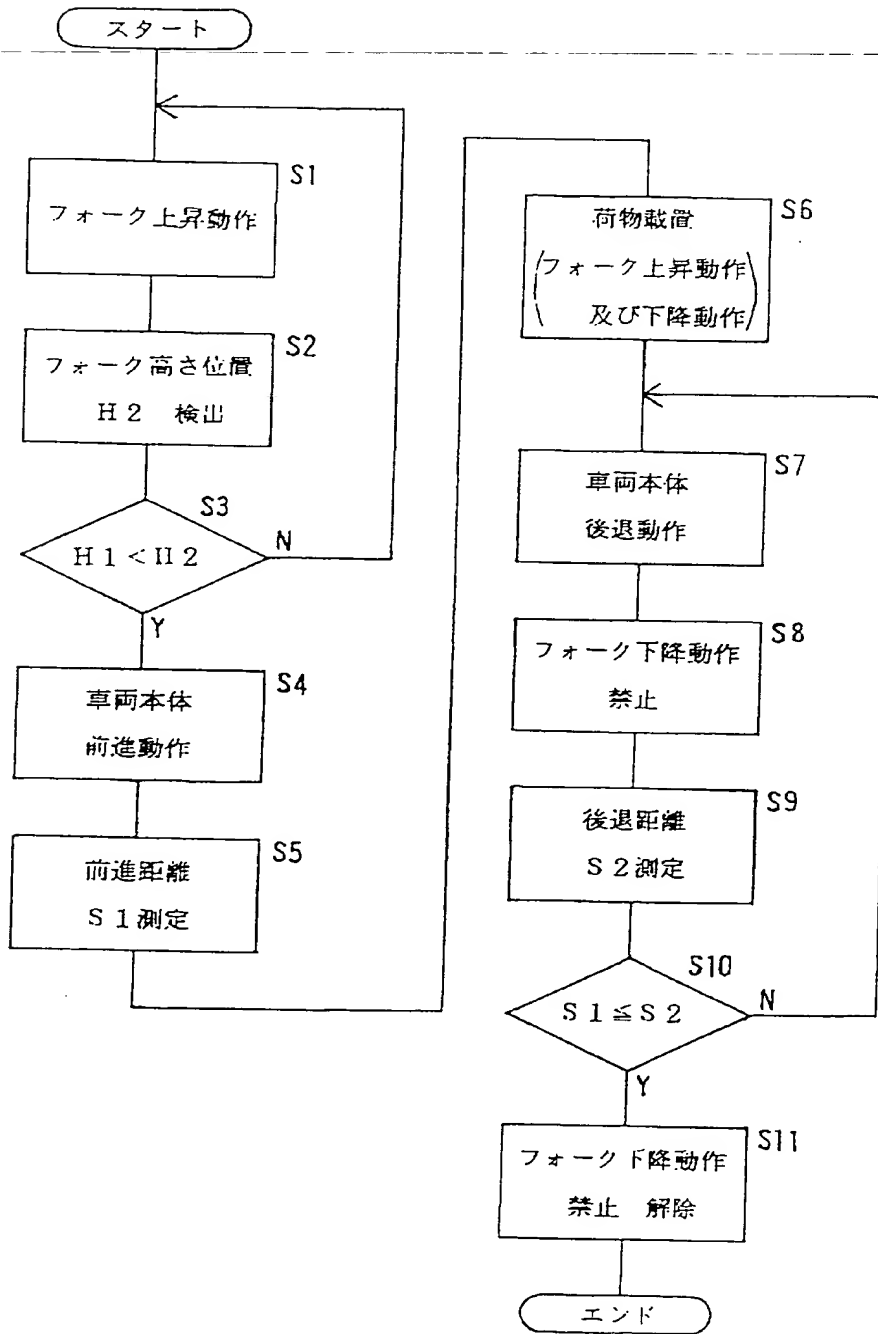
FIG. 12



301: lift unit; 2: lift height detecting section; 3: running system; 4: traveling distance measuring section; 5: information section; 6: alarm section; 7: controller; 8: memory unit 309: arithmetic processing unit (movement control section) 321: fork (cargo carrier); 324: vehicle main body; 331: cargo; H1: reference position; H2: vertical position; S1: forward distance; S2: rearward distance.

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FIG. 13



Start; s1: raise forks; s2: detect fork vertical position; s4: move forward vehicle main body; s5: measure a forward distance S1; s6: set a cargo on the cargo carriers (forks are raised and lowered); s7: move rearward vehicle main body; s8: prohibit the lowering movement of forks; s9: measure a rearward distance S2; s11: cancel the prohibition of the lowering movement of forks; end.

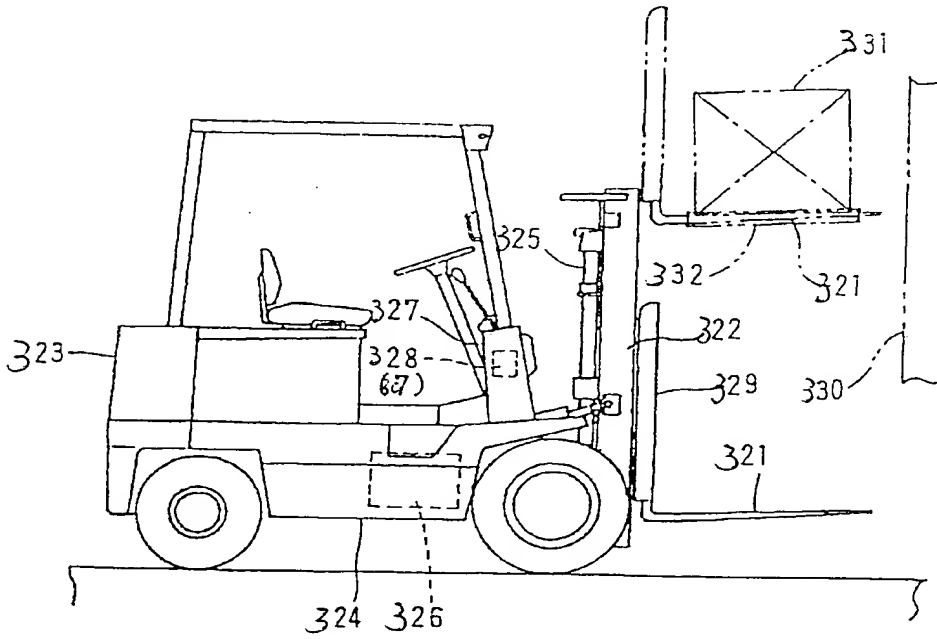
FIG. 13

FIG. 14

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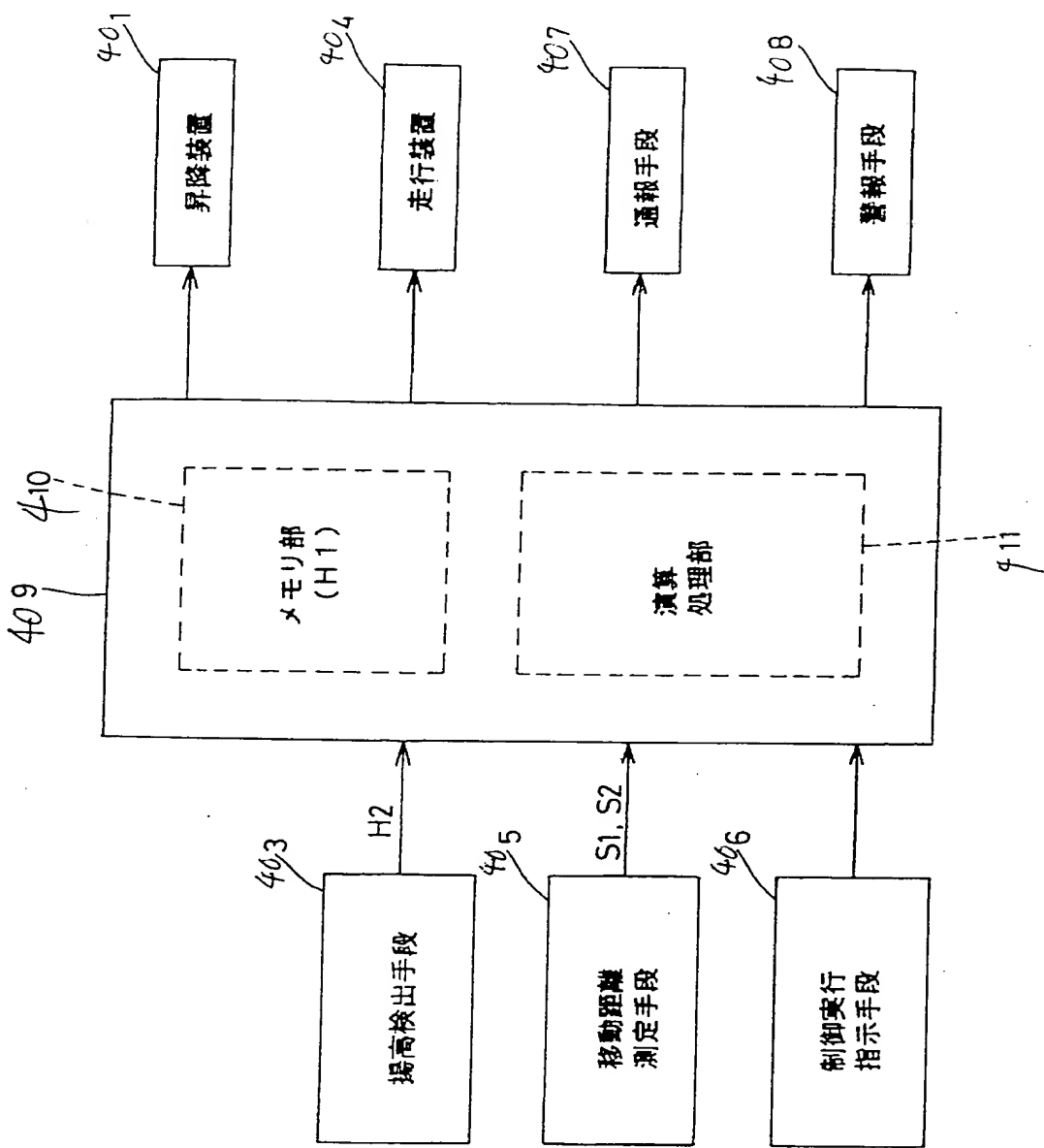
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038-3

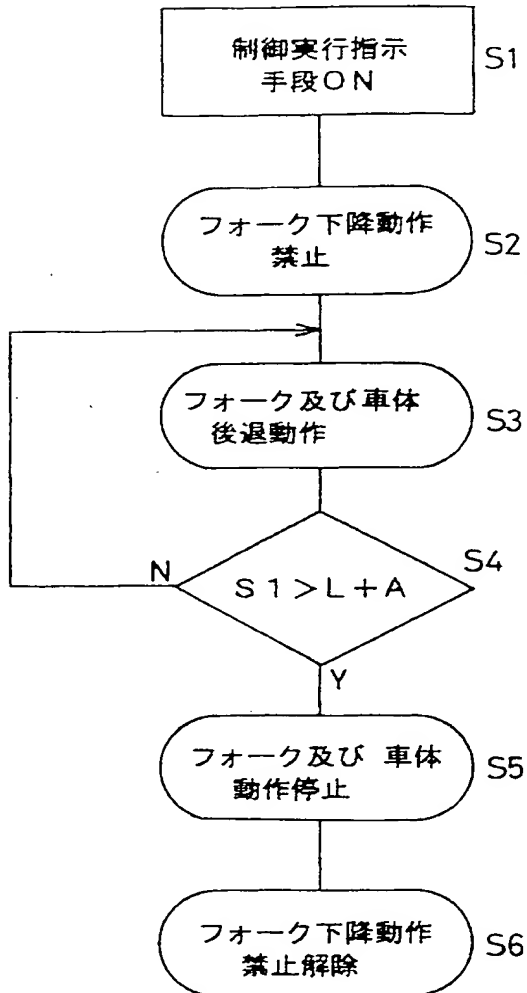
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FIG. 15



401: lift unit; 403: lift height detecting section; 405: traveling distance measuring section; 406: control execution designating section; 407: alarm section; 408: arithmetic processing unit (movement control section).

FIG. 16

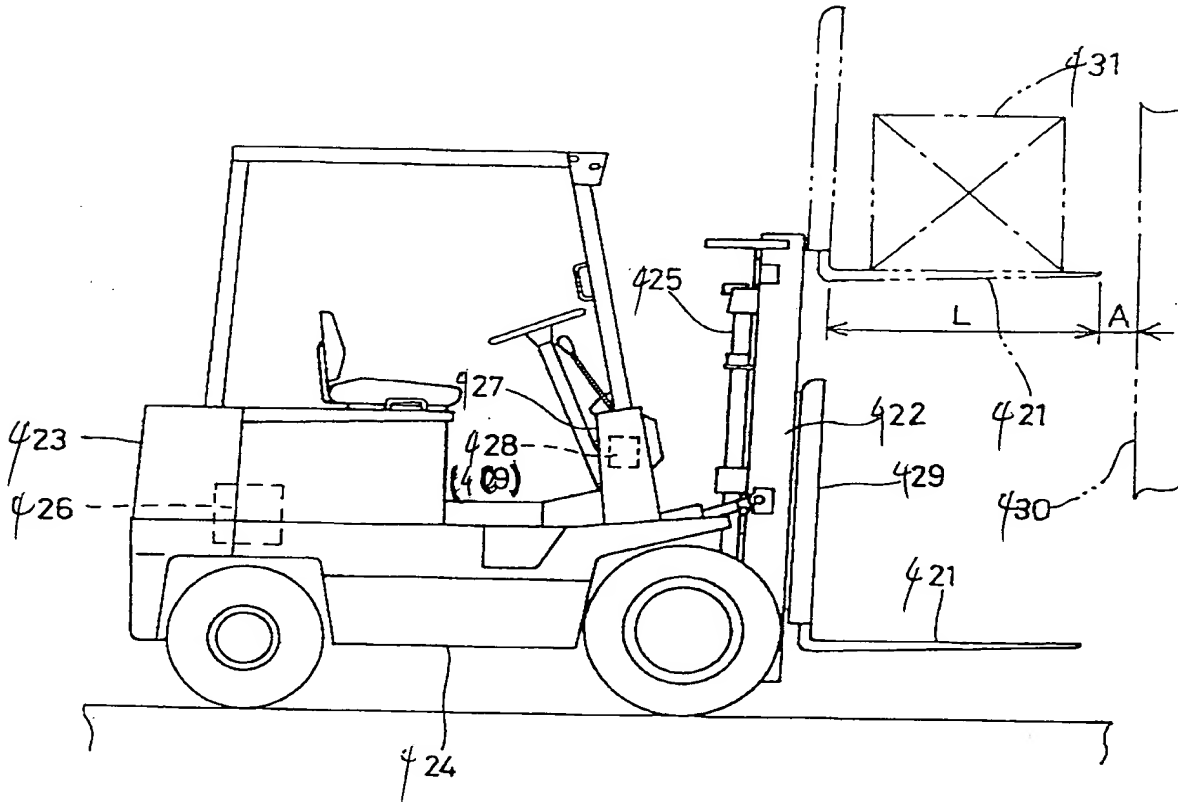


s1: switch on control execution designating section; s2: prohibit the lowering movement of forks; s3: move rearward forks and vehicle main body; s5: stop forks and vehicle main body; s6: cancel the prohibition of the lowering movement of forks.

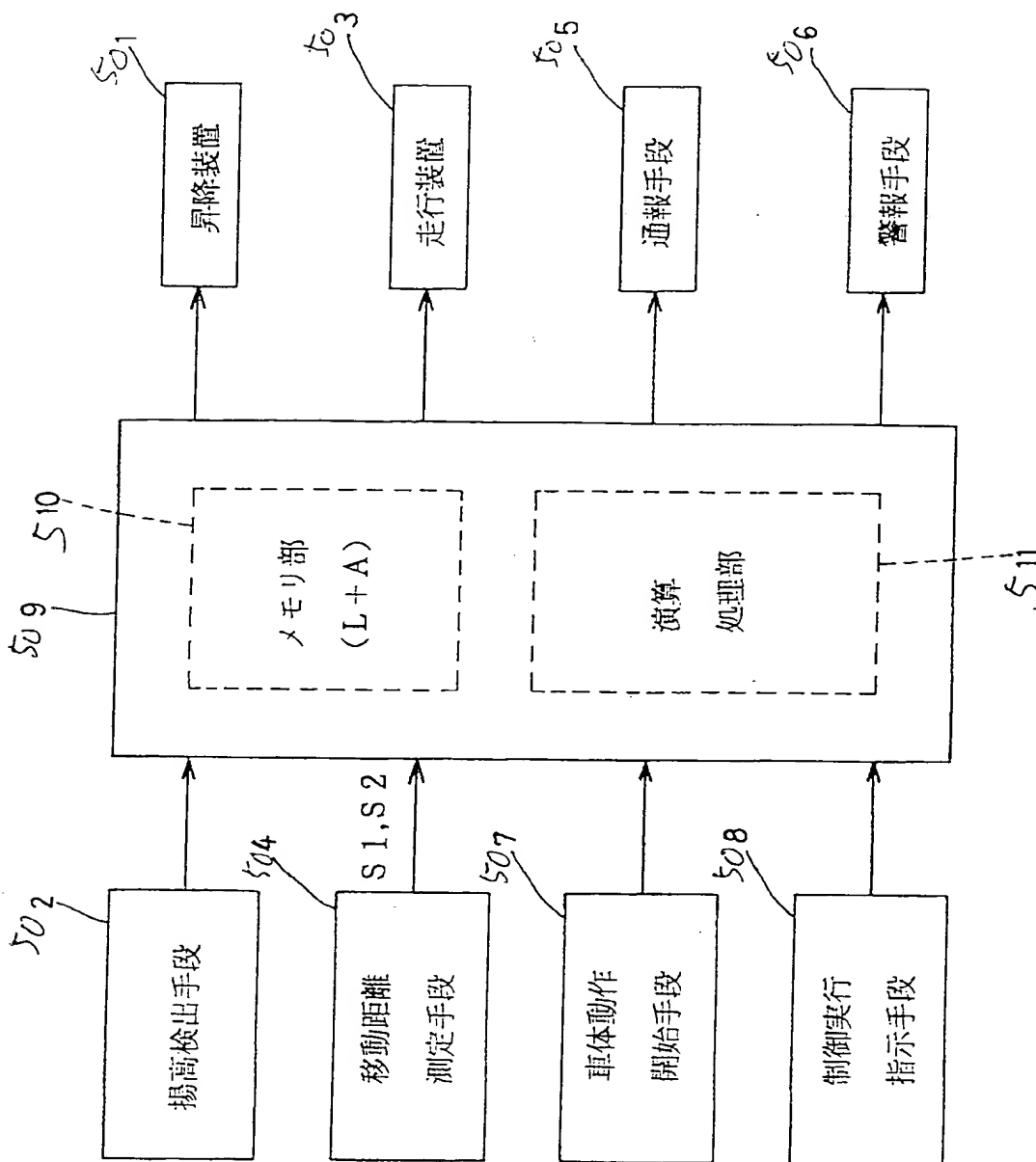
FIG. 16



FIG. 17

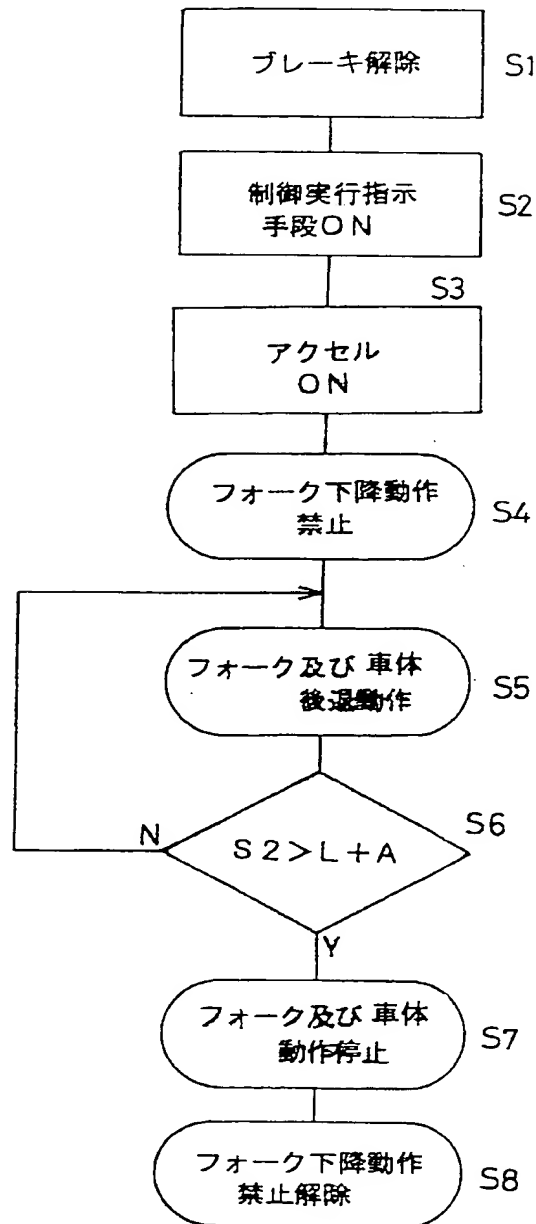


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501: lift unit; 2: lift height detecting section 503: running system; 4: traveling distance measuring section; 5: information section; 6: alarm section; 7: accelerator pedal; 8: control execution designating section; 9: memory unit; 11: arithmetic processing unit

FIG. 19



s1: release brake; s2: switch on control execution designating section; s3: depress accelerator pedal; s4: prohibit the lowering movement of forks; s5: move rearward forks and vehicle main body; s7: stop forks and vehicle main body; s8: cancel the prohibition of the lowering movement of forks.

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FIG. 20

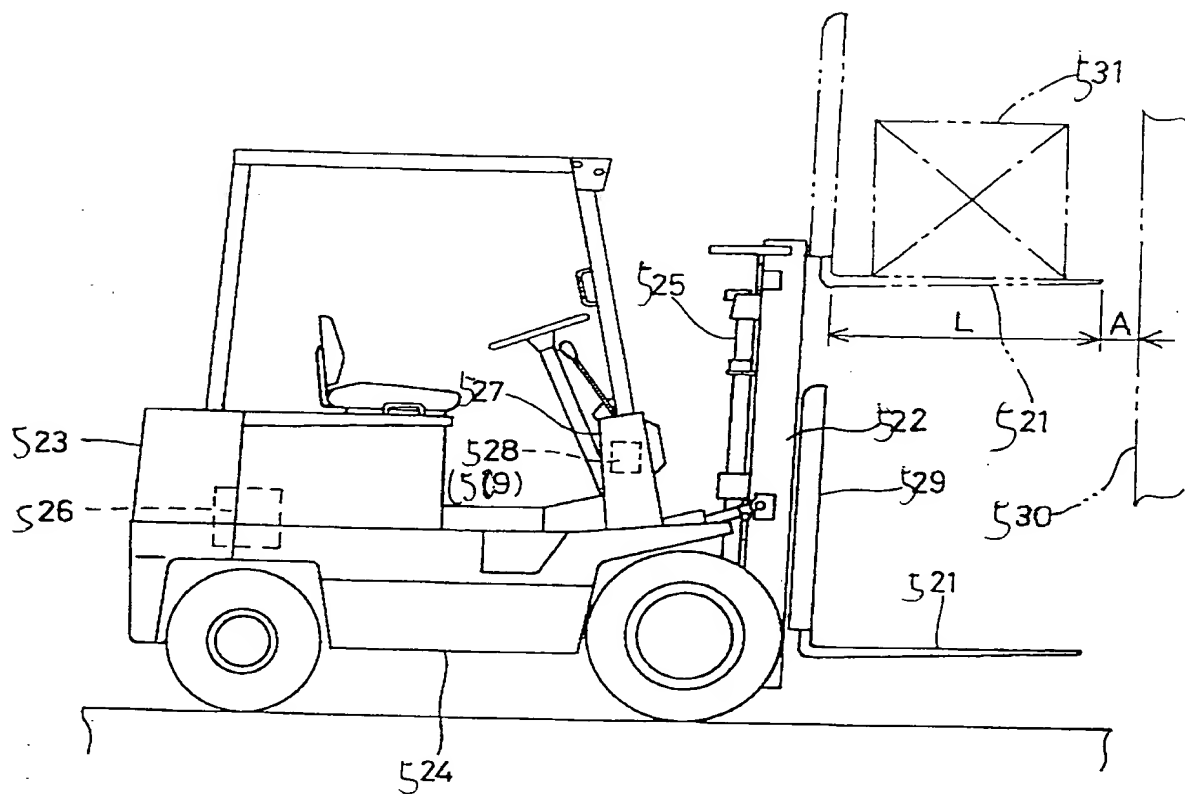
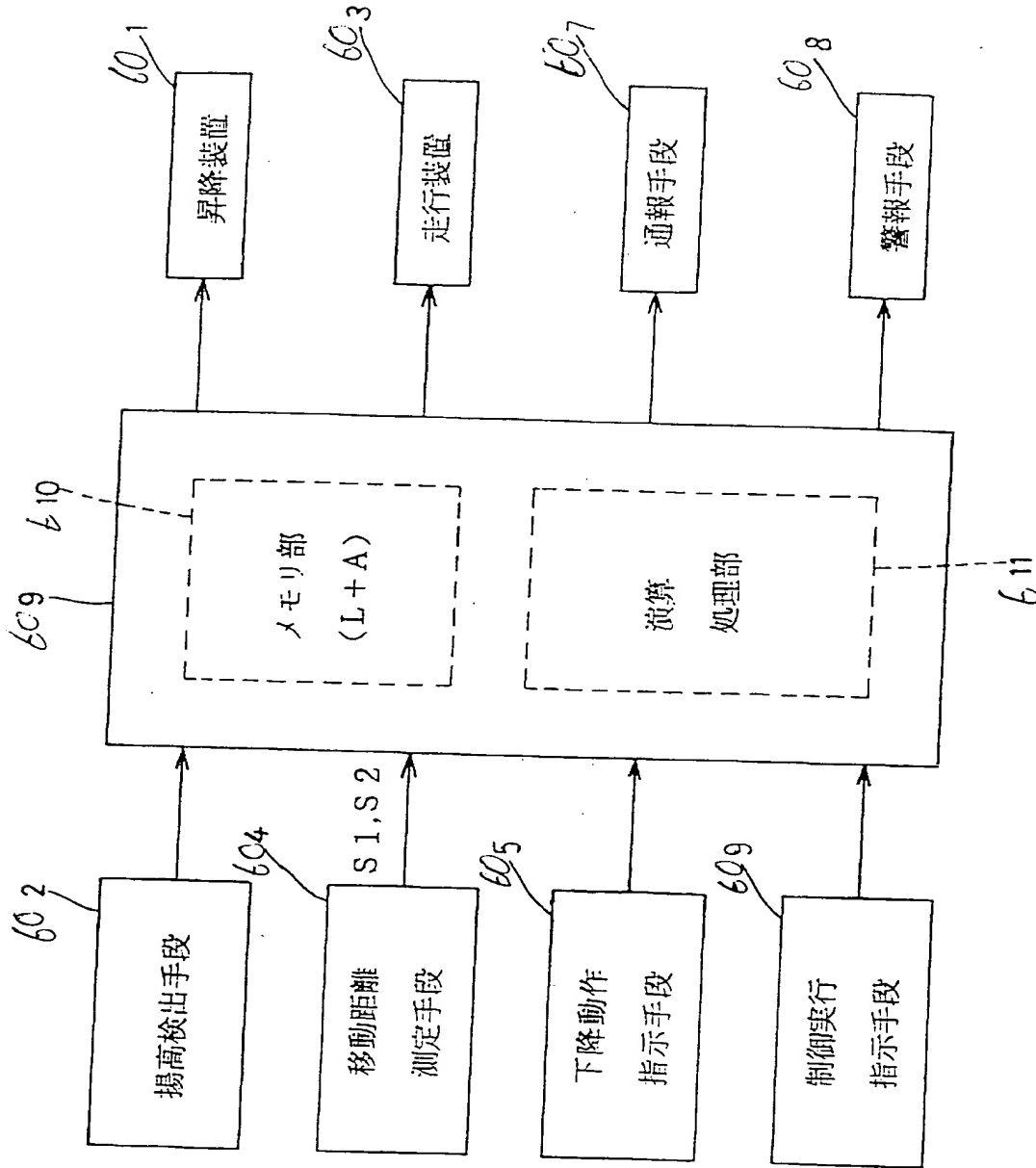
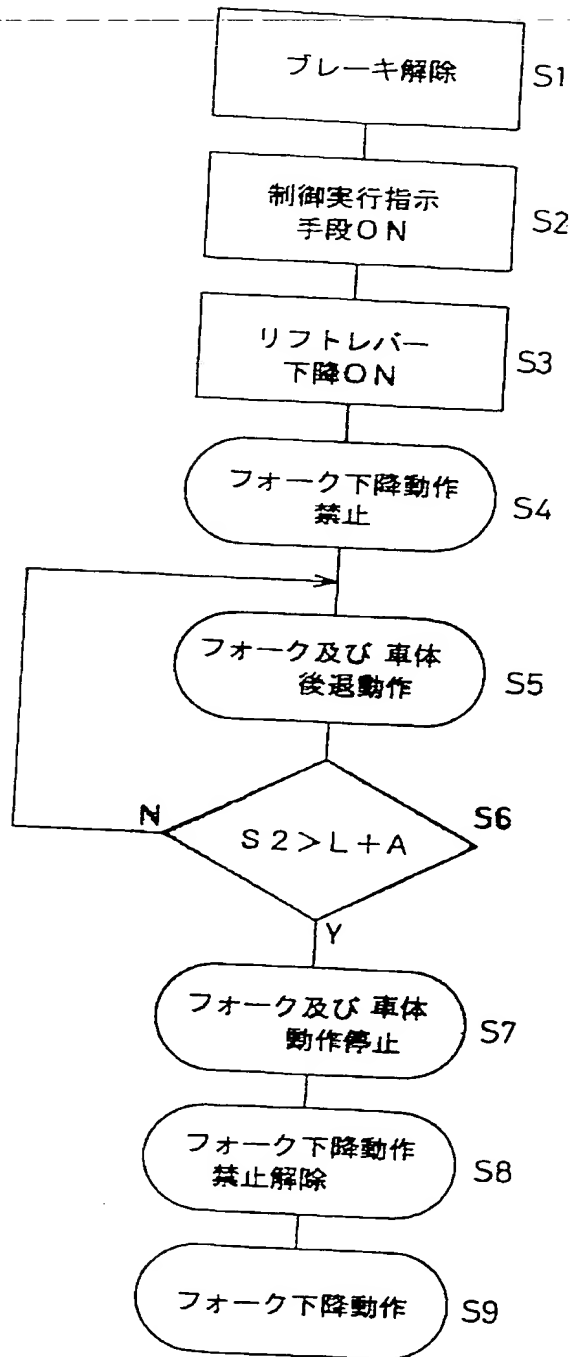


FIG. 20



60: lift unit; 2: lift height detecting section; 3: running system; 4: traveling distance measuring section; 5: lowering movement designating section; 6: controller; 7: information section; 8: alarm section; 9: control execution designating section; 10: memory unit; 11: arithmetic processing unit

FIG. 22



s1: release brake; s2: switch on control execution designating section; s3: switch the lift lever on for lowering movement of forks; s4: prohibit the lowering movement of forks; s5: move rearward forks and vehicle main body; s7: stop forks and vehicle main body; s8: cancel the prohibition of the lowering movement of forks; s9: lower forks.

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FIG. 23

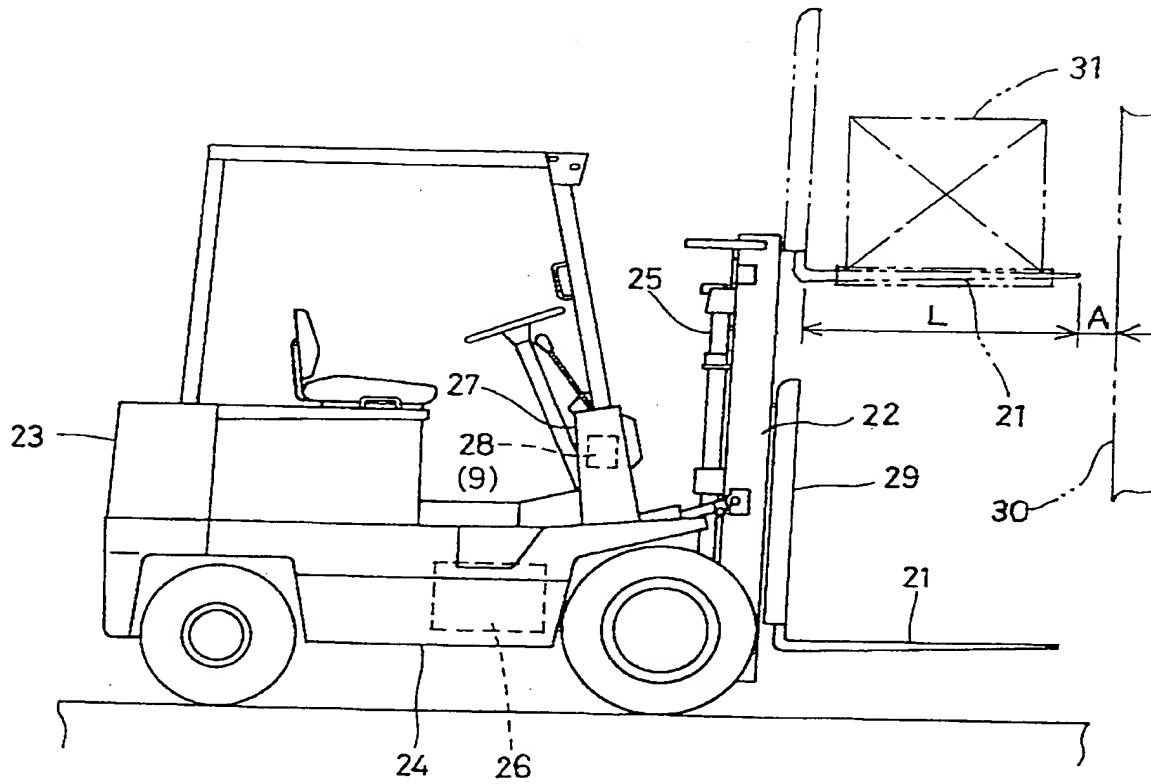
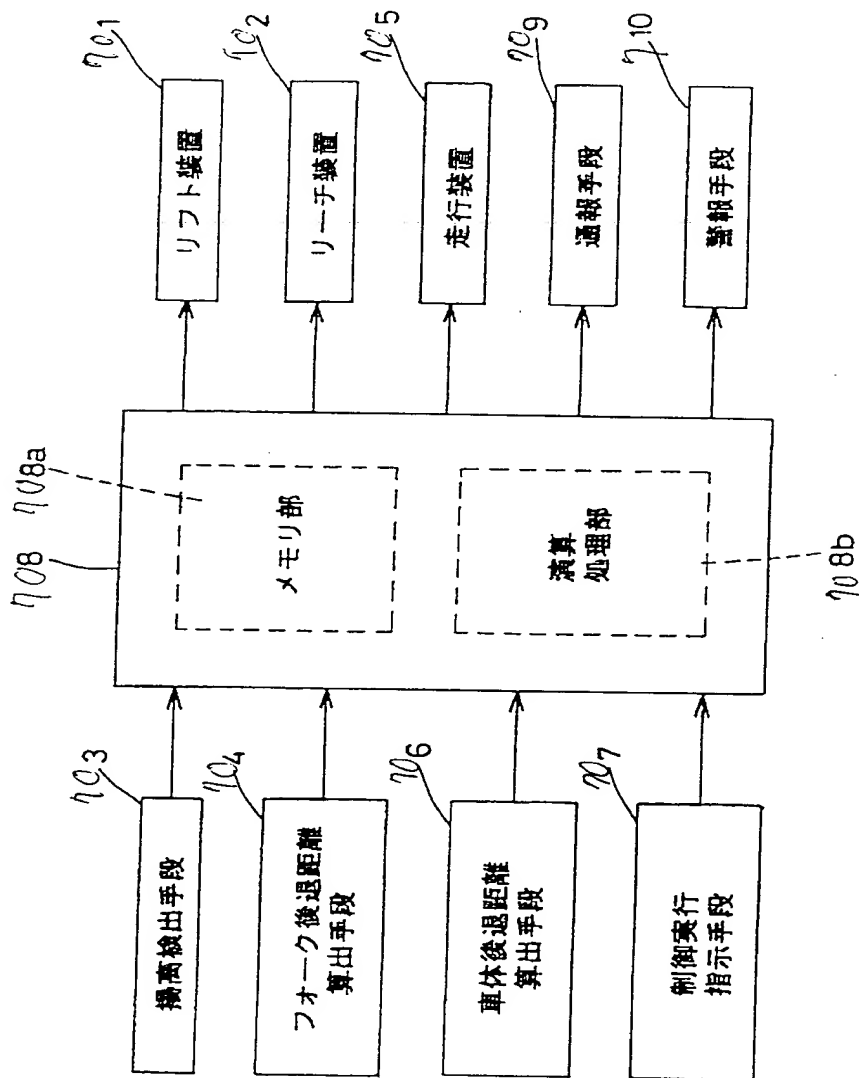


FIG. 23

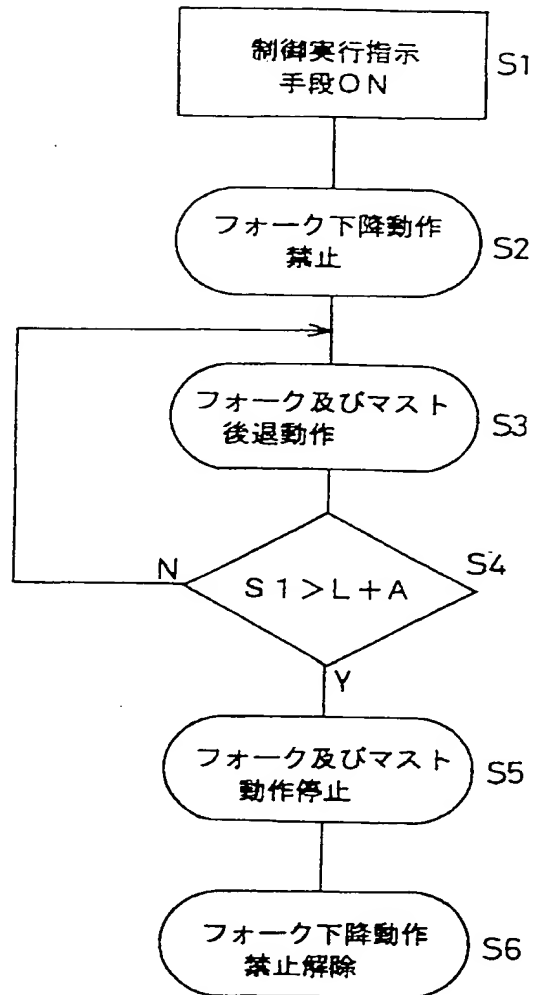
FIG. 24



701: lift unit; 702: reach unit; 703: lift height detecting section; 704: fork rearward distance calculating section; 705: running system; 706: vehicle body rearward distance calculating section; 707: control execution designating section; 708: controller; 708a: memory unit; 708b: arithmetic processing unit; 709: information section; 710: alarm section.



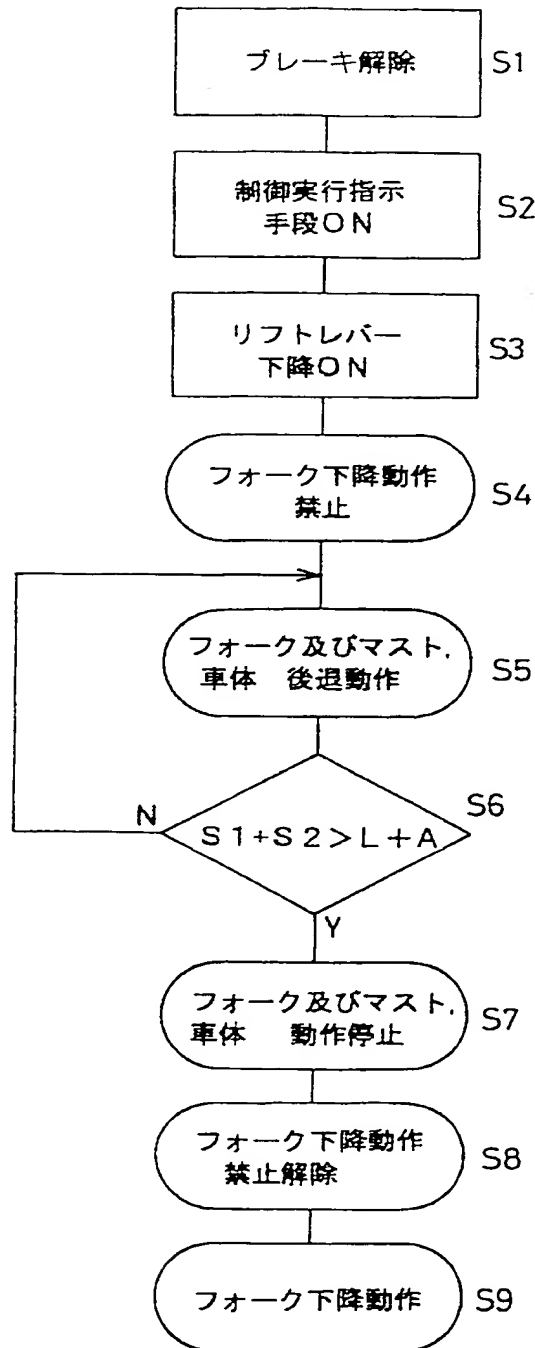
FIG. 25



s1: switch on a control execution designating section; S2: prohibit forks from lowering; S3: move the forks and masts rearward; S5: stop the operation of the forks and masts; S6: cancel the prohibition of the forks from lowering.

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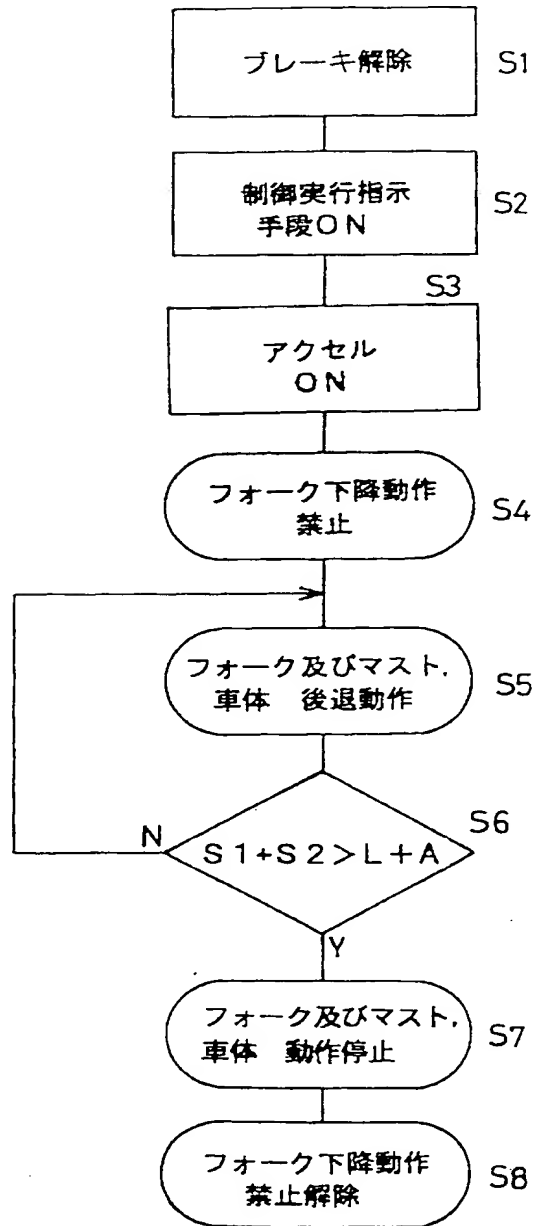
FIG. 26



S1: release a brake; S2: switch on a control execution designating section; S3: switch on to lower a lift lever; S4: prohibit forks from lowering; S5: move the forks and masts, and a vehicle body rearward; S7: stop the operation of the forks and masts, and the vehicle body; S8: cancel the prohibition of the forks from lowering; S9: lower the forks.

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FIG. 27



S1: release a brake; S2: switch on a control execution designating section; S3: depress an accelerator pedal; S4: prohibit forks from lowering; S5: move the forks and masts, and a vehicle body rearward; S7: stop the operation of the forks and masts, and the vehicle body; S8: cancel the prohibition of the forks from lowering.

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FIG. 28

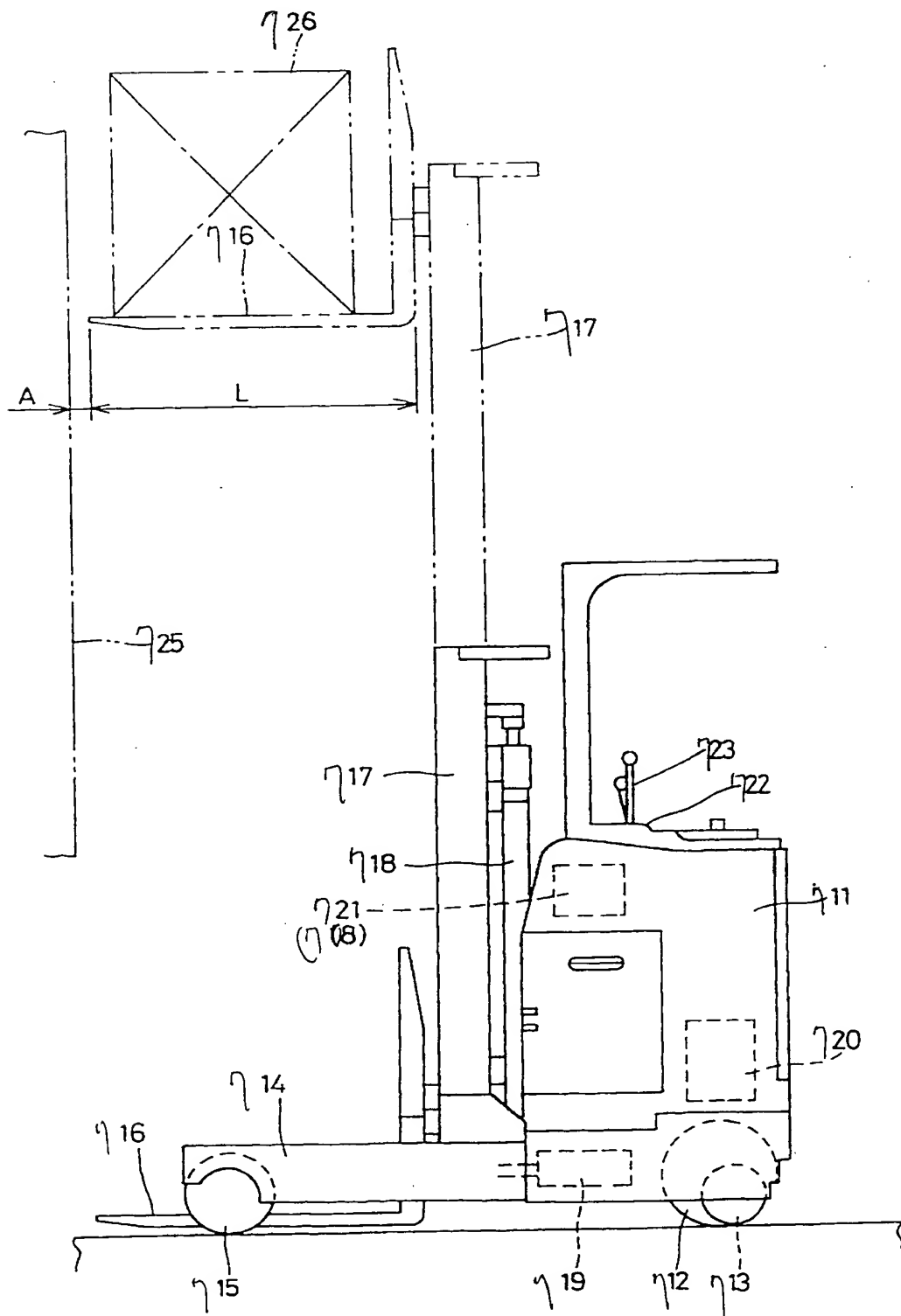


FIG. 28

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814: tilt driving section, 817a: arithmetic processing unit, 817b: memory unit, 831: lift unit, 832: reach unit, 833: lift height detecting section, 839: tilt detecting section, 845: information section, 846: lowering prohibition canceling switch, 847: vehicle body stopping section.

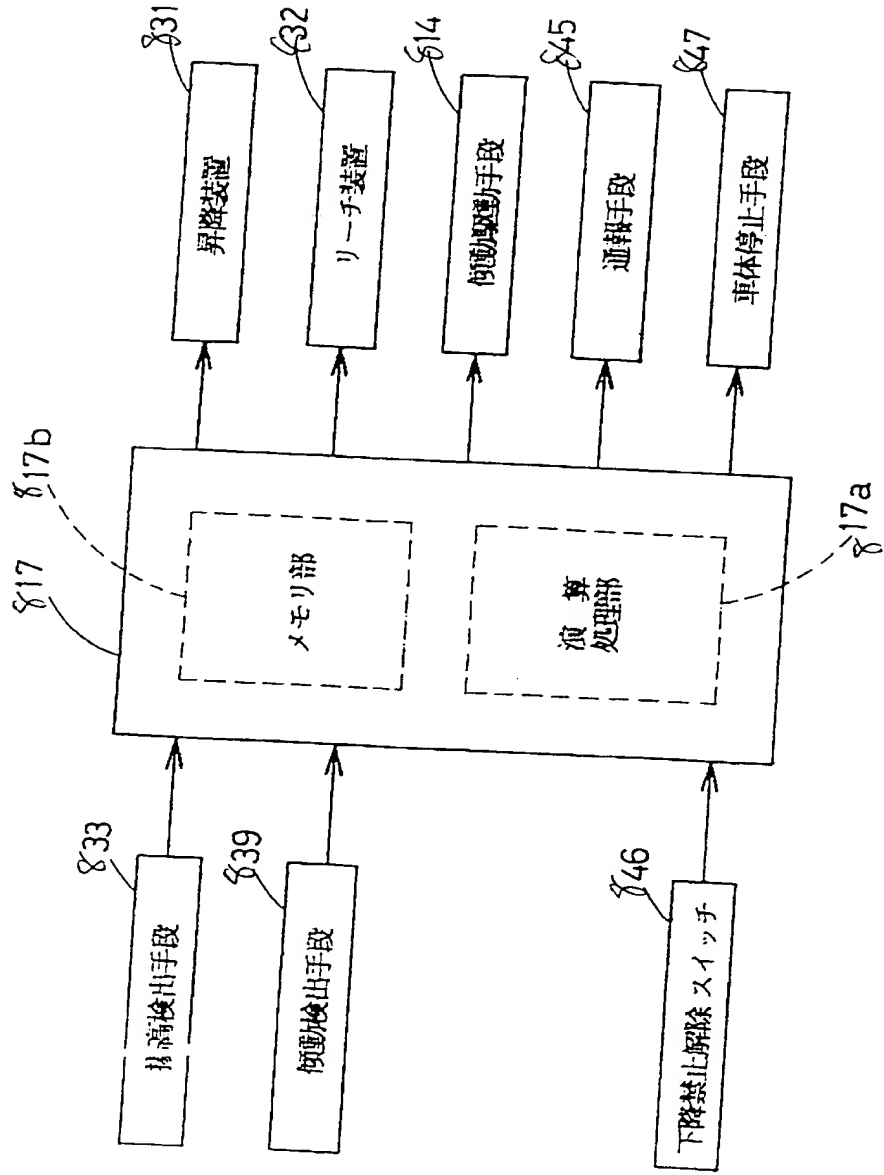


FIG. 29

FIG. 30A

FIG. 30B

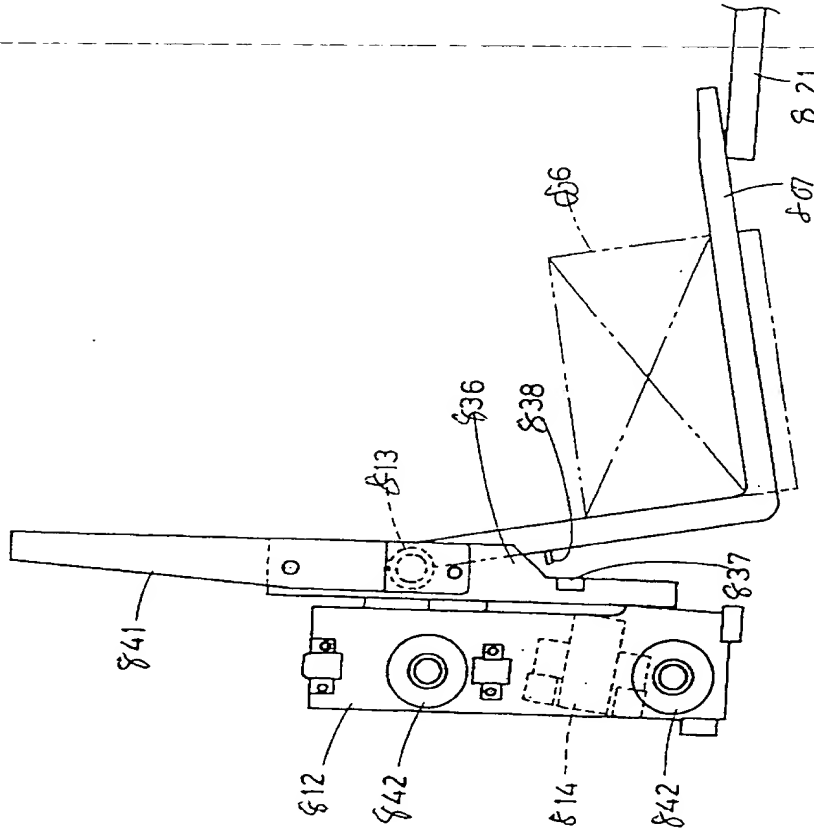
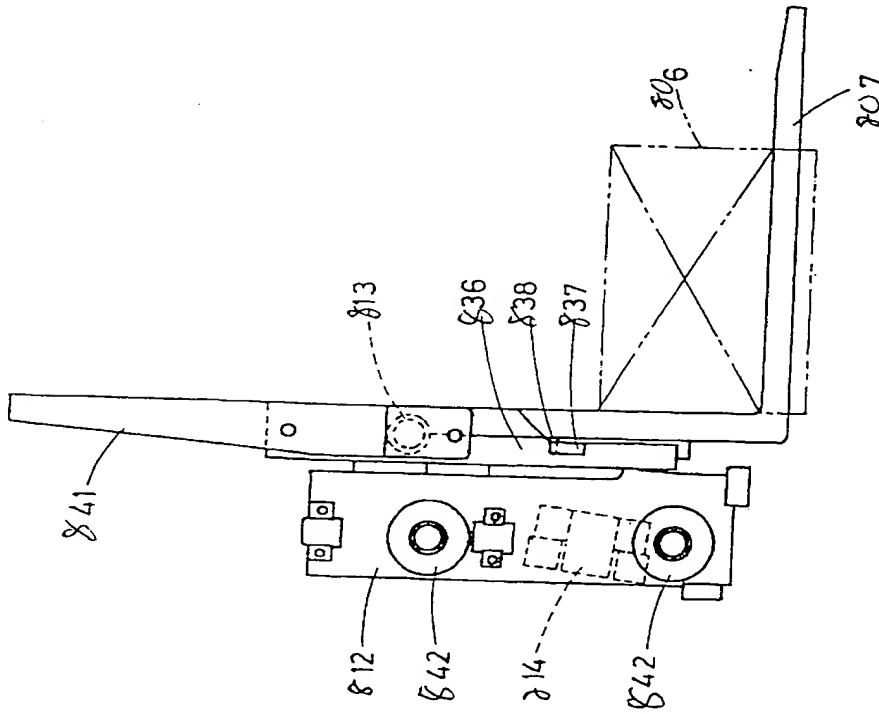
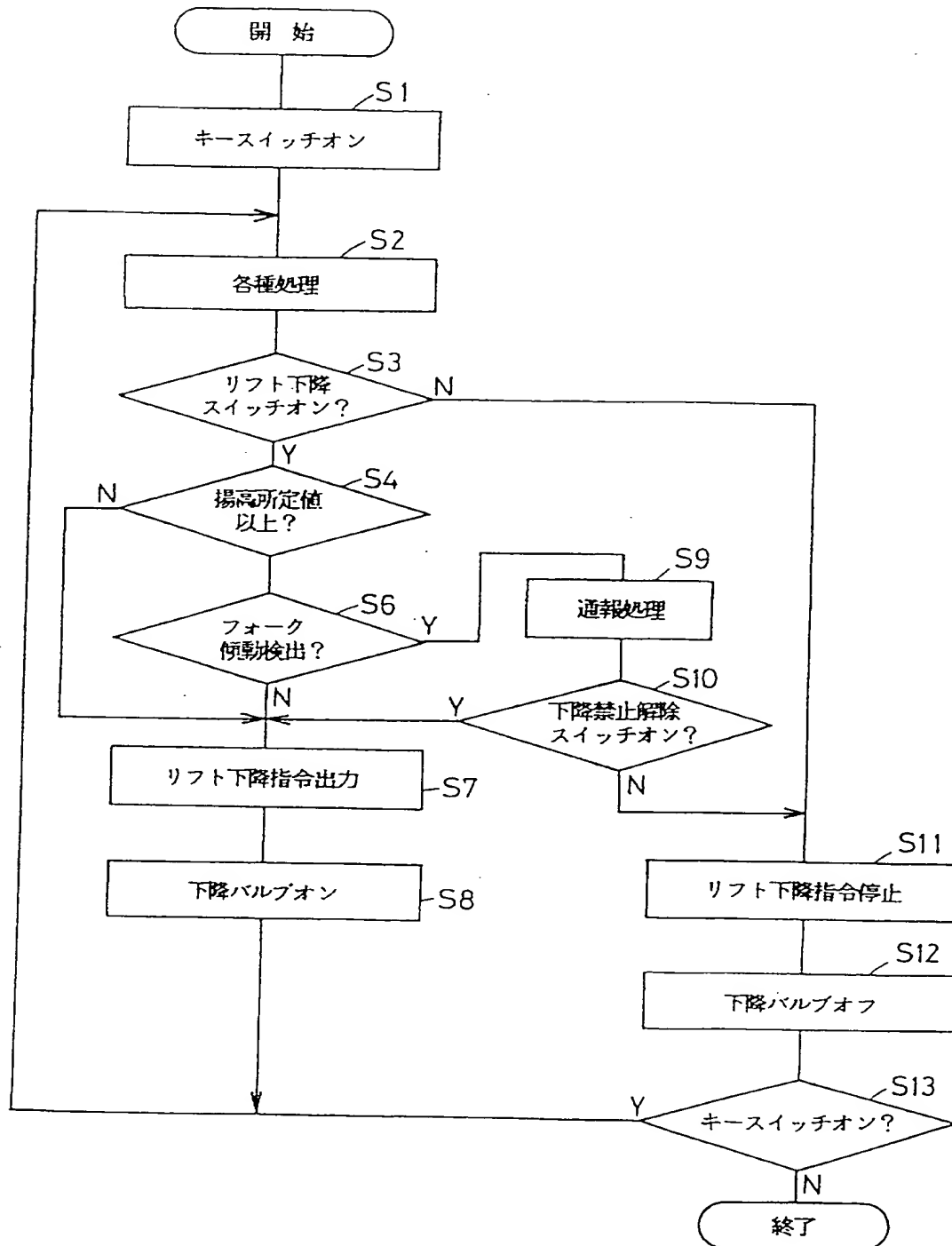
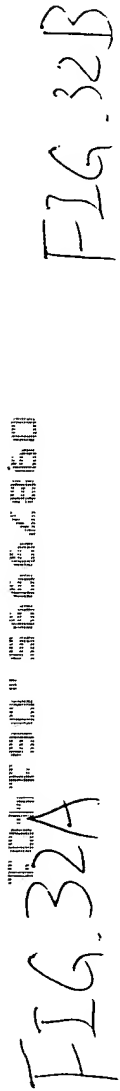


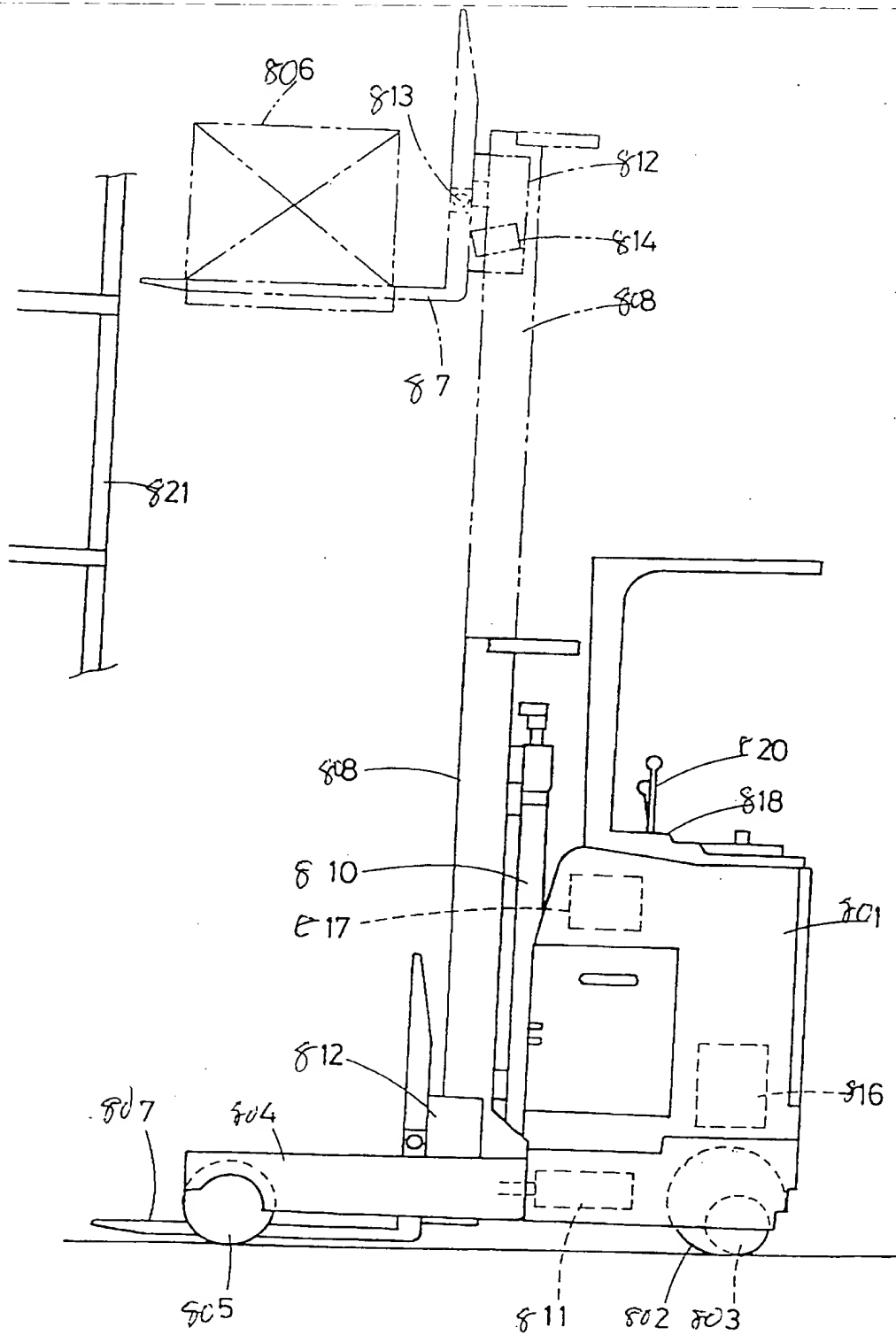
FIG. 31



Start; s1: switch on a key switch; S2: various processings; S3: is a lift lowering switch switched on?; S4: is a lift height position equal to or greater than a predetermined value?; S6: is a fork tilt detected?; S7: output a lift lowering command; S8: switch on lowering valves; S9: information processing; S10: is a lowering prohibition canceling switch switched on?; S11: cancel the lift lowering command; S12: switch off the lowering valves; S13: is the key switch switched on?; End.







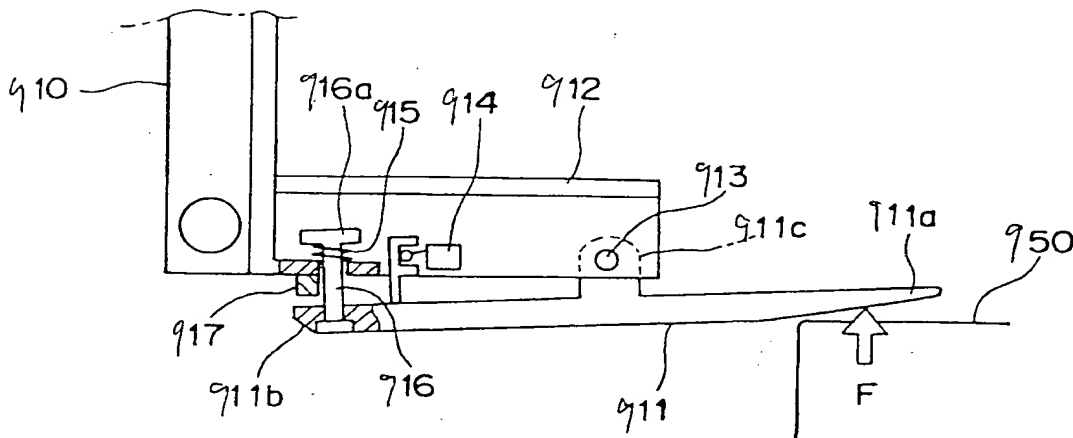
[illegible]

FIG. 36

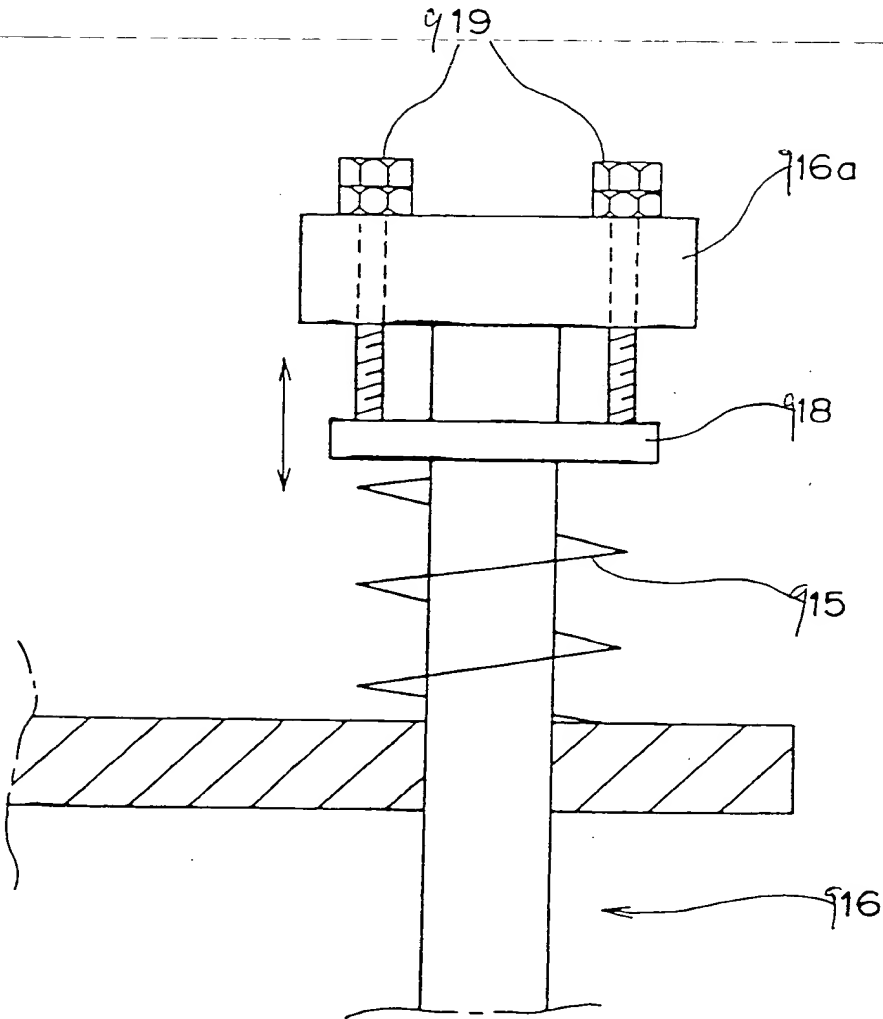


FIG. 36

FIG. 37

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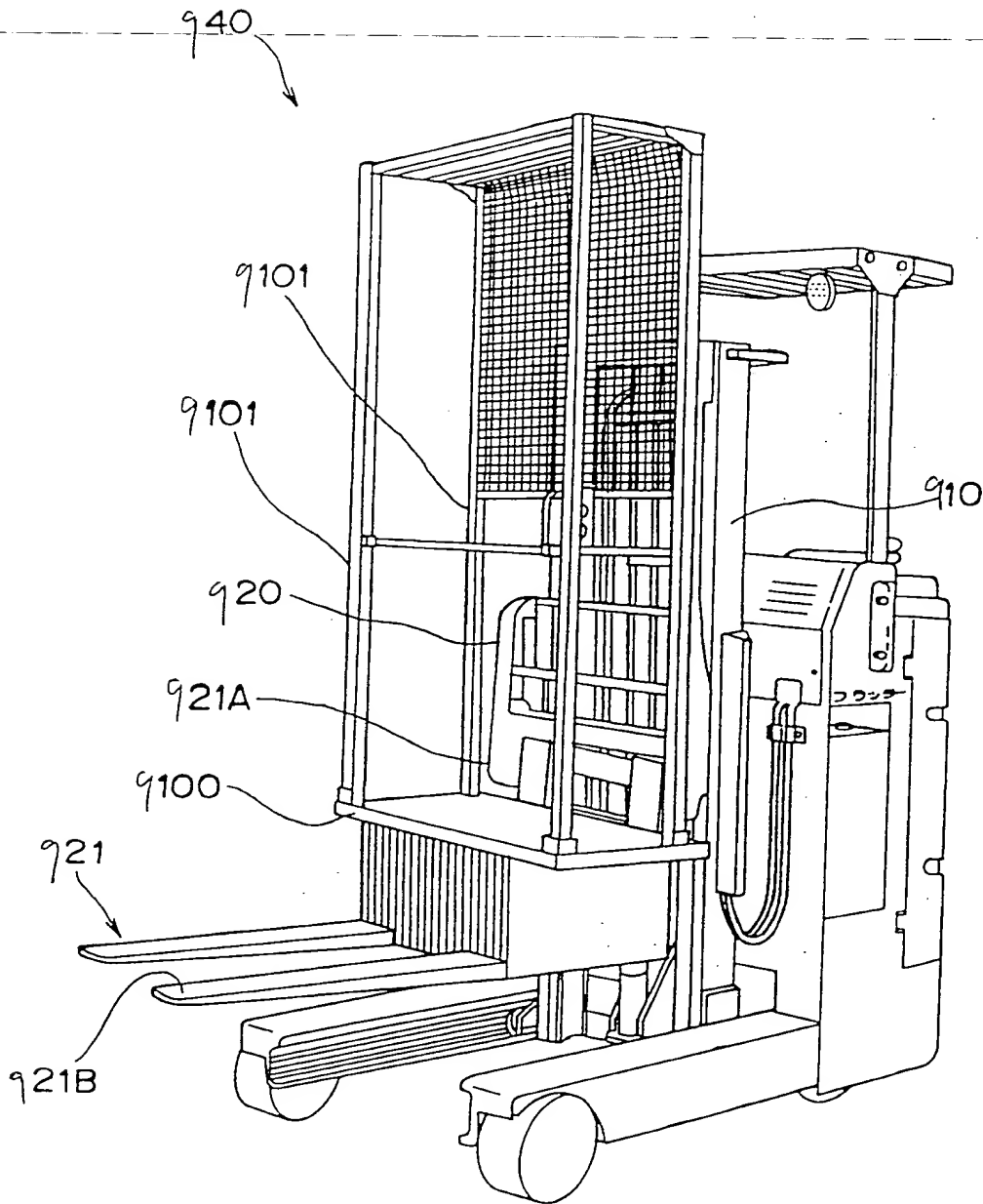


FIG. 37

FIG. 38

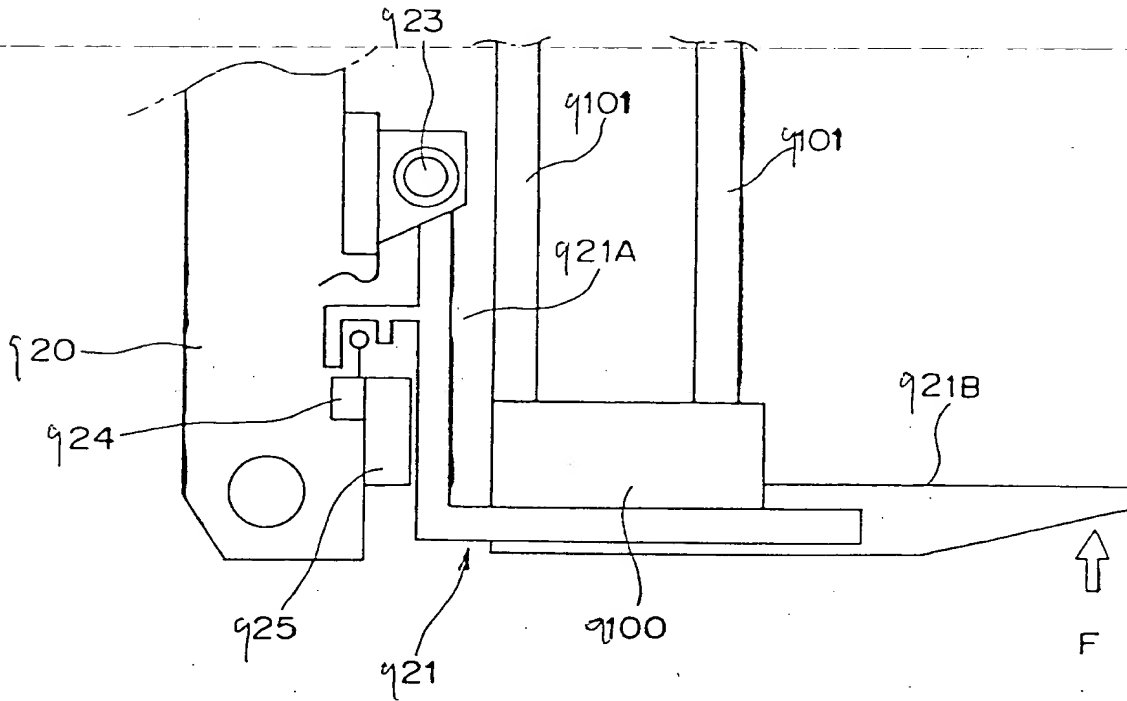
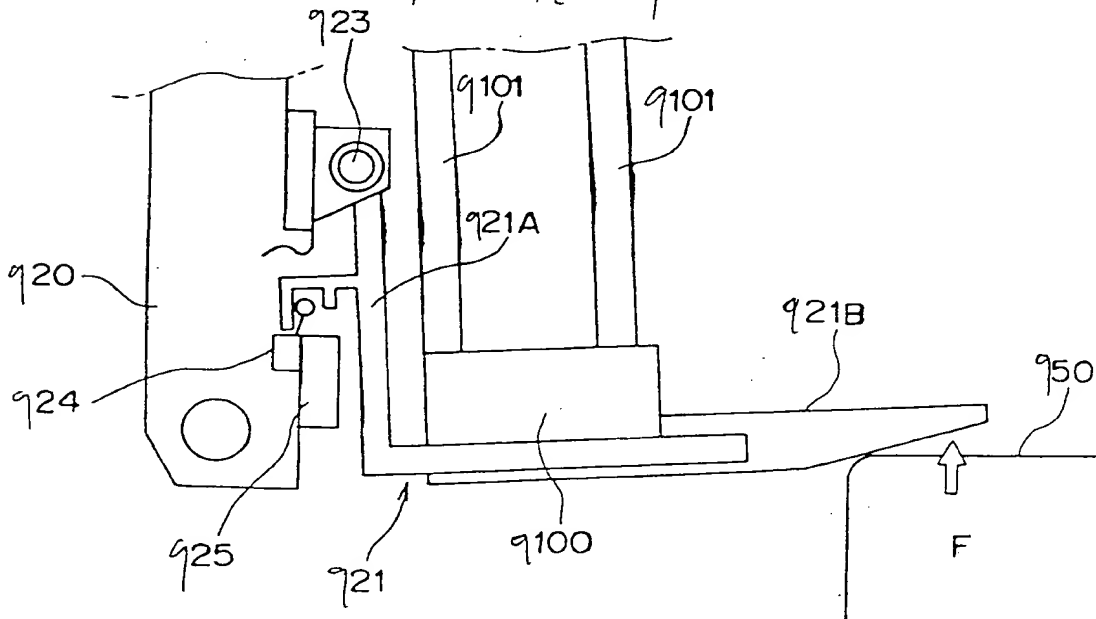


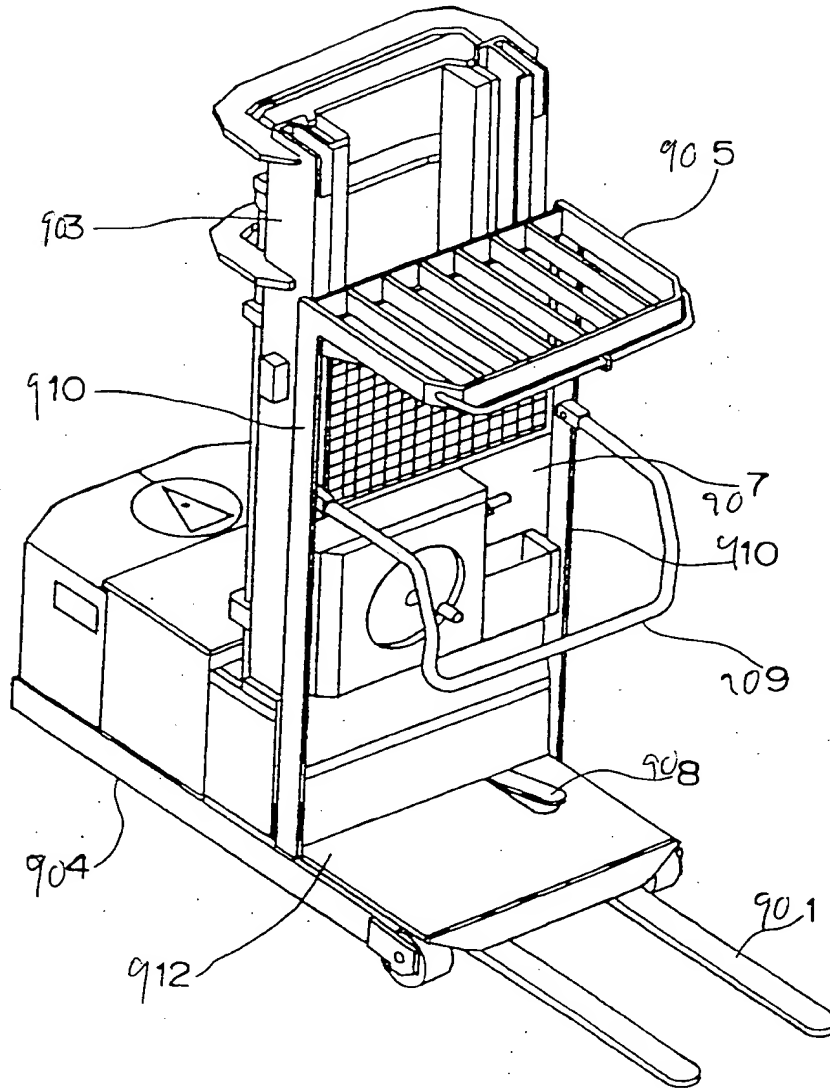
FIG. 39



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FIG. 40

930



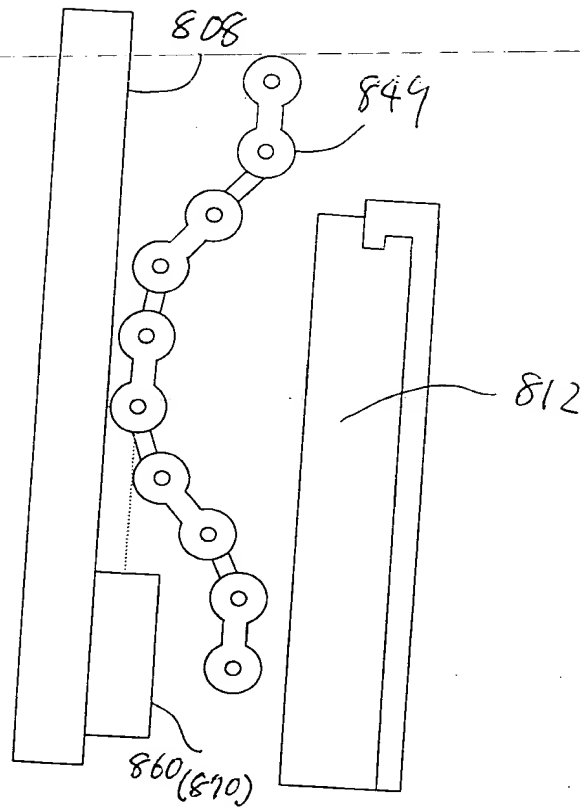
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FIG. 41

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FIG. 42A

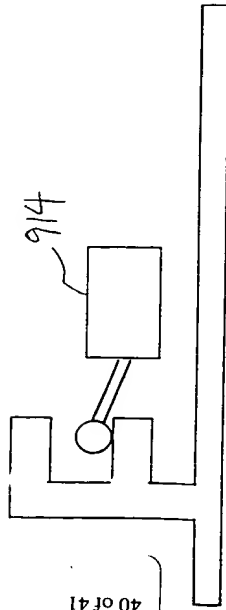


FIG. 42B

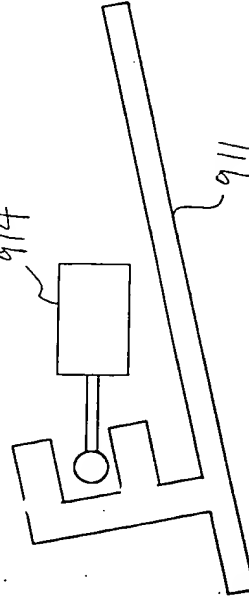


FIG. 43A

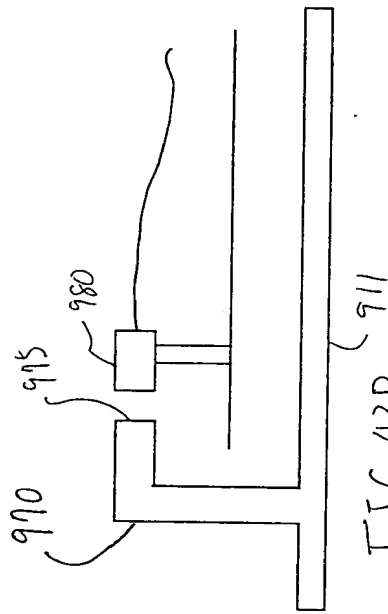


FIG. 43B

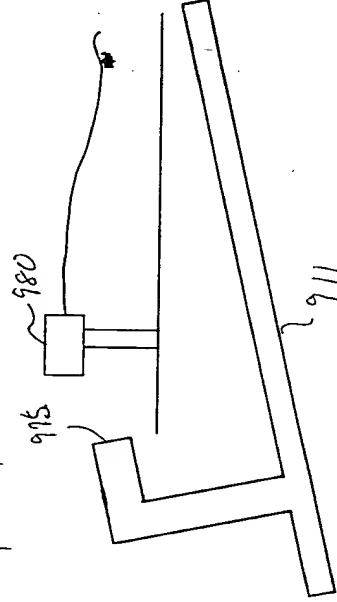


FIG. 44A

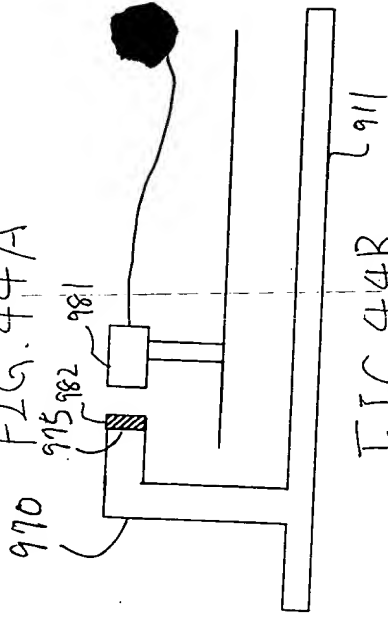


FIG. 44B

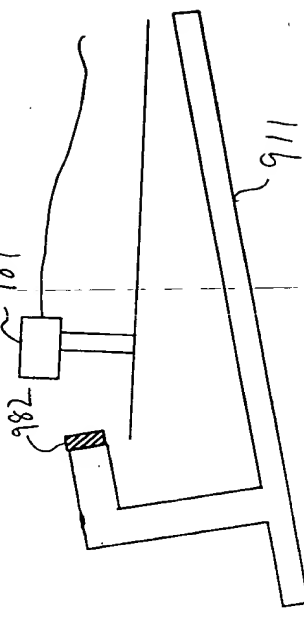




FIG. 45A

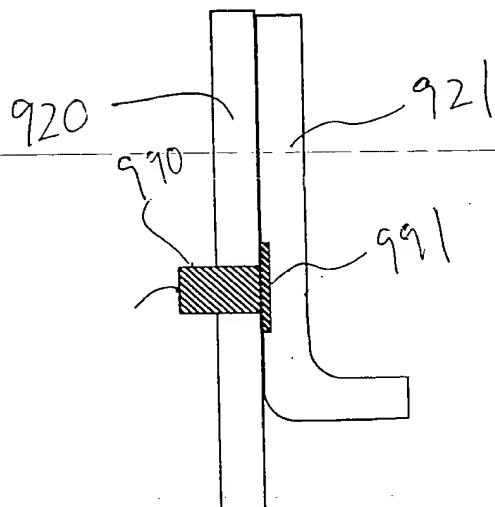


FIG. 45B

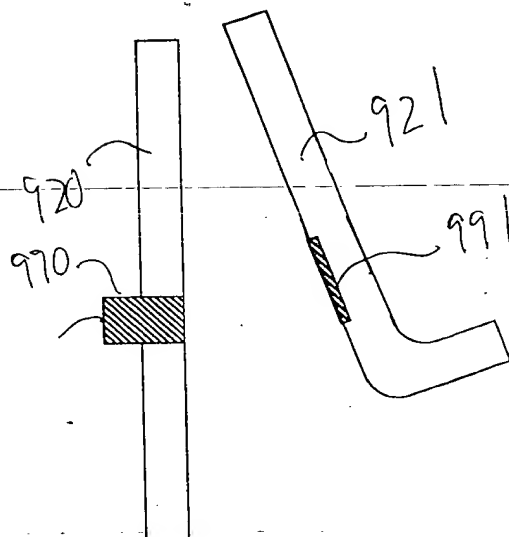


FIG. 46

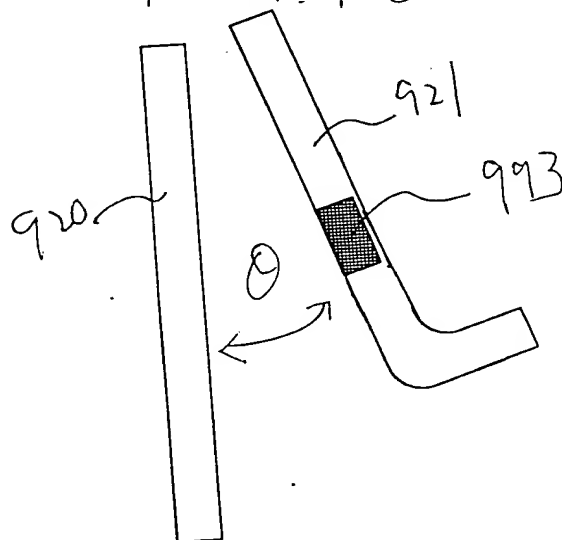


FIG. 47A

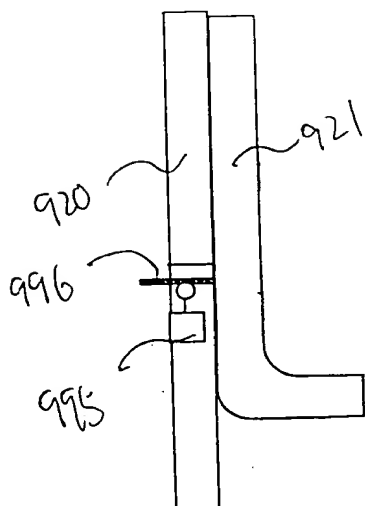


FIG. 47B

